

**APPENDIX M**  
**QUALITY IMPROVEMENT SAMPLE INDICATORS**

California Vision Group D  
System Evaluation and Improvement Group

**CORE QUALITY INDICATORS**

**PREFACE**

## Statewide Quality Indicators

This document is the final draft of proposed statewide quality indicators, which were developed through the activities of the California Vision Group D (System Evaluation and Improvement Group).

The intent behind the development of these indicators is to standardize the way EMS systems in California use data to measure structures, activities and outcomes. While the use of these indicators as a standardized format and evaluation tool is strongly promulgated, the reporting of these indicators and associated data is intended to be voluntary and **NOT** a mandate.

It is expected that in the fall of 2004, select local EMS systems will voluntarily begin reporting data to evaluate these indicators. The voluntary participation on the State EMS Data Committee will form the foundation for developing a statewide EMS system evaluation and improvement program and ultimately a statewide database. The attached indicators form the basis for these activities.

There are sixteen (16) Core indicators, which are made up of several smaller (120) sub-indicators. Many of the indicators were originally developed through the Mountain-Valley, Los Angeles, North Coast EMS grant project (1998-2000). They have since been subject to extensive review by many EMS constituency groups. Development was also subjected to peer review through the publication process of the Joint Commission on Accreditation of Healthcare Organizations in the March 2001 Journal of Quality Improvement.

Thank you for your assistance in this task.

CORE INDICATORS  
Report Specification Sheets

Table of Contents

**AC2: ACCESS & UTILIZATION - PASP**

PSAP 911 - EMS Call Load .....	M-16
PSAP Call – EMS Call Effect Load .....	M-18
911 Call – Lapse Time to Call Pick Up .....	M-20
911 Call – Lapse Time to Call Effect .....	M-22

**AC3: ACCESS & UTILIZATION - EMS DISPATCH CENTER**

EDA - EMS Call Load .....	M-24
EDA – EMS Call Effect Load .....	M-26
EDA Call – Lapse Time to Pick Up .....	M-28
EDA Call – Lapse Time to Call Effect.....	M-30

**BH1 BASE HOSPITALS - ACTIVITY**

Base Hospitals per Response Area.....	M-32
Caseloads per Twenty Four (24) hrs .....	M-34
Caseloads per Authorized Personnel .....	M-36
EMS Base Call Pick up Time .....	M-38

**CA1 PULSELESS V-FIB/V-TACH – UNWITNESSED**

Bystander CPR .....	M-40
PAD-AED.....	M-42
AED-BLS Personnel .....	M-44
Lapse Time to First Shock.....	M-46
Prehospital Defibrillation - Frequency.....	M-48
Number of Shocks.....	M-50
Prehospital Defibrillation - Desired Effect.....	M-52
Epinephrine - Frequency .....	M-54
Epinephrine – Desired Effect .....	M-56
Lidocaine - Frequency .....	M-58
Lidocaine – Desired Effect .....	M-60
ROSC .....	M-62
Survival to ED Admit.....	M-64
Survival to hosp discharge .....	M-66

**CA2PULSELESS V-FIB/V-TACH – WITNESSEDM-62**

Bystander CPR .....	M-68
PAD-AED.....	M-70
AED-BLS Personnel .....	M-72
Lapse Time to First Shock.....	M-74
Prehospital Defibrillation - Frequency.....	M-76

Number of Shocks.....	M-78
Prehospital Defibrillation - Desired Effect.....	M-80
Epinephrine - Frequency .....	M-82
Epinephrine – Desired Effect .....	M-84
Lidocaine - Frequency .....	M-86
Lidocaine – Desired Effect .....	M-88
ROSC .....	M-90
Survival to ED Admit.....	M-92
Survival to hosp discharge .....	M-94
<b><u>CA3CHEST PAIN-SUSPECTED CARDIAC ORIGIN</u></b>	
Oxygen - Frequency .....	M-96
Oxygen - Desired Effect .....	M-97
Nitroglycerine – Frequency.....	M-100
Nitroglycerine – Desired Effect .....	M-102
Morphine – Frequency .....	M-104
Morphine – Desired Effect.....	M-105
ASA Admin .....	M-108
Scene Time.....	M-110
Decrease/relief of symptoms .....	M-112
Survival to hosp discharge .....	M-114
<b><u>ED1 EMS EDUCATION &amp; TRAINING</u></b>	
EMT-1 Training Completions .....	M-116
EMT-1 Training% Cert .....	M-117
EMT-P Training Seats .....	M-118
EMT-P Training Completion .....	M-120
EMT-P Training % License.....	M-121
EMT-P Training % Employ .....	M-123
Approved CE Providers .....	M-125
Continuing Education .....	M-127
<b><u>MA1 LS STAFFING LEVELS</u></b>	
2 ALS Provider – Cardiac Arrest .....	M-129
1 ALS Provider - Cardiac Arrest.....	M-131
2 ALS Provider - Critical Trauma .....	M-133
2 ALS Provider - Critical Trauma .....	M-135
<b><u>PP1 PUBLIC EDUCATION &amp; PREVENTION</u></b>	
Bystander CPR .....	M-137
PAD-AED .....	M-139
<b><u>RE1 SHORTNESS OF BREATH - BRONCHSPASM</u></b>	
Oxygen – Frequency .....	M-141
Oxygen – Desired Effect .....	M-142
Bronchodilator - Frequency .....	M-145
Bronchodilator - Desired Effect .....	M-147

Relief of Symptoms .....	M-149
Provider Impression Match ED .....	M-151
Survival to Hosp Discharge .....	M-153
<b><u>RE2 SHORTNESS OF BREATH – FLUID OVERLOAD</u></b>	
Oxygen – Frequency .....	M-155
Oxygen – Desired Effect .....	M-157
Nitroglycerine - Frequency .....	M-159
Nitroglycerine - Desired Effect .....	M-161
Morphine – Frequency .....	M-163
Morphine – Desired Effect .....	M-165
Furosemide - Frequency .....	M-167
Furosemide – Desired Effect .....	M-169
Relief of Symptoms .....	M-171
Provider Impression Match ED .....	M-173
Survival to Hosp Discharge .....	M-175
<b><u>RF1 RECEIVING FACILITIES - UTILIZATION</u></b>	
Transfers – Frequency .....	M-177
Diversion –Frequency .....	M-179
Lapse Transport Time – Pt Diversion .....	M-181
Transfer – Cost .....	M-183
Transfer -Higher Care .....	M-185
<b><u>RS1 RESPONSE</u></b>	
Response Unit Queue Time .....	M-187
Response Unit Roll Time > 10 mins .....	M-189
Response Unit Roll Time > 20 mins .....	M-191
<b><u>SK1 SKILLS – ADVANCED PROVIDER</u></b>	
Adult ET oral – frequency .....	M-193
Adult ET oral - % Insertion .....	M-195
Adult ET nasal – frequency .....	M-197
Adult ET nasal - %Insertion .....	M-199
Ped ET oral – frequency .....	M-201
Ped ET oral - % Insertion .....	M-203
Ped IV – frequency .....	M-205
Ped IV – % Insertion .....	M-207
Ped IO – frequency .....	M-209
Ped IO - % Insertion .....	M-211
<b><u>TH1 TRAUMA HOSPITALS</u></b>	
Trauma Hospitals per Response Area .....	M-213
Trauma Cases received per 24 hrs .....	M-213
<b><u>TR1 CRITICAL TRAUMA</u></b>	
Frequency Blunt Mechanism .....	M-215
Frequency Penetrating Mechanism .....	M-217

Frequency Pediatric.....	M-219
Frequency Head, Neck, Face.....	M-221
Frequency Chest .....	M-223
Frequency Abdomen .....	M-225
Frequency Burns .....	M-227
Lapse time on scene>10 min.....	M-229
Transport time > 10 min .....	M-231
Transport time > 20 min .....	M-233
Triage to Specialty Facility .....	M-235
Advanced Airway Inserted.....	M-237
Prehospital Oxygenation .....	M-239
Survival to ED admit .....	M-241
Survival to hosp discharge .....	M-243

# *Core Quality Indicators*

California EMS Authority  
EMS System Evaluation and Improvement  
Vision Group D

# CORE INDICATORS

## Table of Contents

AC2 ACCESS & UTILIZATION - PASP .....	M-9
AC3 ACCESS & UTILIZATION - EMS DISPATCH CENTER .....	M -9
BH1 BASE HOSPITALS - ACTIVITY .....	M -9
CA1 PULSELESS V-FIB/V-TACH – UNWITNESSED .....	M -10
CA2 PLSELESS V-FIB/V-TACH - WITNESSED .....	M -10
CA3 CHEST PAIN-SUSPECTED CARDIAC ORIGIN .....	M -11
ED1 EMS EDUCATION & TRAINING .....	M -11
MA1 ALS STAFFING LEVELS - SURVIVAL.....	M -12
PP1 PUBLIC EDUCATION & PREVENTION.....	M -12
RE1 SHORTNESS OF BREATH - BRONCHSPASM .....	M -12
RE2 SHORTNESS OF BREATH – FLUID OVERLOAD .....	M -13
RF1 RECEIVING FACILITIES - UTILIZATION .....	M -13
RS1 RESPONSE- OPERATIONS .....	M -13
SK1 SKILLS – ADVANCED PROVIDER .....	M -14
TH1 TRAUMA HOSPITALS - CASELOADS .....	M -14
TR1 CRITICAL TRAUMA - CLINICAL.....	M -15



CALIFORNIA EMS AUTHORITY  
INDEX OF CORE QUALITY INDICATORS

AC2 - CORE INDICATOR: ACCESS & UTILIZATION			
SECTION 4: SYSTEM OPERATIONS			
COMPONENT: ACCESS			
SUBJECT: EMS SYSTEM ACCESS - PSAP			
SUB-QUALITY INDICATOR	NDEX	CLASS	REPORTED INDICATOR ITEM
PSAP 911 Call Load	AC2A	Structural	911 Calls per 24 hrs of operation
PSAP Call Effect Load	AC2B	Structural	911 Calls effected per 24 hrs
911 Call Pick Up	AC2F	Process	Lapse time: first ring to call pick up
911 Call Effect	AC2G	Process	Lapse time: call pick up to call effect

AC3 - CORE INDICATOR: ACCESS & UTILIZATION			
SECTION 4: SYSTEM OPERATIONS			
COMPONENT: ACCESS			
SUBJECT: EMS SYSTEM ACCESS – EMERGENCY DISPATCH AGENCY (EDA)			
SUB-QUALITY INDICATOR	NDEX	CLASS	REPORTED INDICATOR ITEM
EDA Call Load	AC2A	Structural	911 Calls per 24 hrs of operation
EDA Call Effect Load	AC2B	Structural	911 Calls effected per 24 hrs
EDA Call Pick Up	AC2F	Process	Lapse time: first ring to call pick up
EDA Call Effect	AC2G	Process	Lapse time: call pick up to call effect

BH1 - CORE INDICATOR: BASE HOSPITALS			
SECTION 4: SYSTEM OPERATIONS			
COMPONENT: BASEHOSPITALS			
SUBJECT: ACTIVITY			
Sub-QUALITY INDICATOR	NDEX	CLASS	REPORTED INDICATOR ITEM
Base Hospitals per Response Area Caseloads	BH1A	Structural	Base Hospital per Response Area Caseload
Caseloads per 24 hrs	BH1B	Structural	Medical Control Calls per 24 hr
Caseloads per Authorized Personnel	BH1C	Structural	Medical Control Calls per Authorized Personnel
EMS Base Call Pick up Time	BH1D	Process	Ave Lapse time from call ring to pick up

CA1 - CORE INDICATOR: PULSELESS V-FIB/TACH UNWITNESSED			
SECTION I: MEDICAL CARE			
COMPONENT: CLINICAL			
SUBJECT: CARDIAC			
Sub-QUALITY INDICATOR	INDEX	CLASS	REPORTED INDICATOR ITEM
Bystander CPR	CA1A	Structure	% of total incidents
PAD-AED	CA1B	Structure	% of total incidents
AED-BLS Personnel	CA1C	Structure	% of total incidents
Lapse Time to First Shock	CA1D	Process	% > 10 mins
Prehospital Defibrillation	CA1E	Structure	% frequency per patient
Number of Shocks	CA1F	Process	average number of shocks per case
Prehospital Defibrillation	CA1G	Outcome	% desired Effect Achieved
Epinephrine Admin	CA1H	Structure	% frequency of admin per case
Epinephrine Admin	CA1I	Outcome	% desired effect achieved
Lidocaine Admin	CA1J	Structure	% frequency of admin per case
Lidocaine Admin	CA1K	Outcome	% desired effect achieved
ROSC	CA1L	Outcome	% ROSC of total incidents
Survival to ED Admit	CA1M	Outcome	% admit to ED of total incidents
Survival to hosp discharge	CA1N	Outcome	% discharge of total incidents

CA2 - CORE INDICATOR: PULSELESS V-FIB/TACH WITNESSED			
SECTION I: MEDICAL CARE			
COMPONENT: CLINICAL			
SUBJECT: CARDIAC			
Sub-QUALITY INDICATOR	INDEX	CLASS	REPORTED INDICATOR ITEM
Bystander CPR	CA2A	Structure	% of total incidents
PAD-AED	CA2B	Structure	% of total incidents
AED-BLS Personnel	CA2C	Structure	% of total incidents
Lapse Time to First Shock	CA2D	Process	% > 10 mins
Prehospital Defibrillation	CA2E	Structure	% frequency per patient
Number of Shocks	CA2F	Process	average number of shocks per case
Prehospital Defibrillation	CA2G	Outcome	% desired Effect Achieved
Epinephrine Admin	CA2H	Structure	% frequency of admin per case
Epinephrine Admin	CA2I	Outcome	% desired effect achieved
Lidocaine Admin	CA2J	Structure	% frequency of admin per case
Lidocaine Admin	CA2K	Outcome	% desired effect achieved
ROSC	CA2L	Outcome	% ROSC of total incidents
Survival to ED Admit	CA2M	Outcome	% admit to ED of total incidents
Survival to hosp discharge	CA2N	Outcome	% discharge of total incidents

CA3 - CORE INDICATOR: CHEST PAIN-SUSPECTED CARDIAC ORIGIN			
SECTION I: MEDICAL CARE			
COMPONENT: CLINICAL			
SUBJECT: CARDIAC			
Sub-QUALITY INDICATOR	INDEX	CLASS	REPORTED INDICATOR ITEM
Oxygen Admin	CA3A	Process	% of total incidents
Oxygen Admin	CA3B	Outcome	% desired effect
NTG Admin	CA3C	Process	% of total incidents
NTG Admin	CA3D	Outcome	% desired effect
MS Admin	CA2E	Process	% of total incidents
MS Admin	CA3F	Outcome	% desired effect
ASA Admin	CA2G	Process	% of total incidents
Scene Time	CAH	Process	Average lapse time on scene
Decrease/relief of symptoms	CA2I	Outcome	% of total incidents
Survival to hosp discharge	CA2J	Outcome	% of total incidents

ED1 - CORE INDICATOR: EMS EDUCATION & TRAINING			
SECTION 4: SYSTEM OPERATIONS			
COMPONENT: TRAINING & EDUCATION			
SUBJECT: STUDENT PROFILES			
Sub-QUALITY INDICATOR	INDEX	CLASS	REPORTED INDICATOR ITEM
EMT-1 Training	ED1A	Structural	Completions per year
EMT-1 Training	ED1B	Process	% cert per year
EMT-P Training	ED1C	Structural	Seats available per year
EMT-P Training	ED1D	Structural	Completions per year
EMT-P Training	ED1E	Process	% License per year
EMT-P Training Job Placement	ED1F	Process	% initially employed as EMT-P
Approved CE Providers	ED1G	Structural	number of Approved CE Providers
CEU's offered per year	ED1H	Structural	Hrs per year

MA1 - CORE INDICATOR: MANPOWER			
SECTION 4: SYSTEM OPERATIONS			
COMPONENT: MANPOWER			
SUBJECT: UNIT CONFIGURATIONS			
SUB-QUALITY INDICATOR	NDEX	CLASS	REPORTED INDICATOR ITEM
2 ALS Provider Response Unit Configuration Survival cardiac Arrest	MA1A	Outcome	% Survival Cardiac Arrest 2 ALS Provider Response
1 ALS Provider Response Unit Configuration Survival cardiac Arrest	MA1B	Outcome	% Survival Cardiac Arrest 1 ALS Provider Response
2 ALS Provider Response Unit Configuration Survival Critical Trauma	MA1C	Outcome	% Survival Critical Trauma 2 ALS Provider Response
2 ALS Provider Response Unit Configuration Survival Critical Trauma	MA1D	Outcome	% Survival Critical Trauma 1 ALS Provider Response

PP1 - CORE INDICATOR: PUBLIC EDUCATION & PREVENTION			
SECTION 4: SYSTEM OPERATIONS			
COMPONENT: PUBLIC ED & PREVENTION			
SUBJECT: PUBLIC INTEGRATION			
Sub-QUALITY INDICATOR	NDEX	CLASS	REPORTED INDICATOR ITEM
Bystander CPR	PP1A	Structural	% Response area population trained in bystander CPR
PAD-AED	PP1B	Structural	% Response area population trained with PAD-AED resources available

RE1 - CORE INDICATOR: SHORTNESS OF BREATH SIGNS & SYMPTOMS OF BRONCH SPASM			
SECTION I: MEDICAL CARE			
COMPONENT: CLINICAL			
SUBJECT: RESPIRATORY			
Sub-QUALITY INDICATOR	INDEX	CLASS	REPORTED INDICATOR ITEM
Oxygen Admin	RE1A	Process	% of total incidents
Oxygen Admin	RE1B	Outcome	% desired effect
NTG Admin	RE1C	Process	% of total incidents
NTG Admin	RE1D	Outcome	% desired effect
MS Admin	RE1E	Process	% of total incidents
MS Admin	RE1F	Outcome	% desired effect
Furosemide Admin	RE1G	Process	% of total incidents
Furosemide Admin	RE1H	Outcome	% desired effect
Relief of symptoms	RE1I	Outcome	% of total incidents
Provider Impression Match Match ED Diagnosis	RE1J	Outcome	% of total incidents
Survival to hosp discharge	RE1K	Outcome	% Survival

RE2 - CORE INDICATOR: SHORTNESS OF BREATH SIGNS & SYMPTOMS OF FLUID OVERLOAD			
SECTION I: MEDICAL CARE			
COMPONENT: CLINICAL			
SUBJECT: RESPIRATORY			
Sub-QUALITY INDICATOR	INDEX	CLASS	REPORTED INDICATOR ITEM
Oxygen Admin	RE2A	Process	% of total incidents
Oxygen Admin	RE2B	Outcome	% desired effect
NTG Admin	RE2C	Process	% of total incidents
NTG Admin	RE2D	Outcome	% desired effect
MS Admin	RE2E	Process	% of total incidents
MS Admin	RE2F	Outcome	% desired effect
Furosemide Admin	RE2G	Process	% of total incidents
Furosemide Admin	RE2H	Outcome	% desired effect
Relief of symptoms	RE2I	Outcome	% of total incidents
Provider Impression Match Match ED Diagnosis	RE2J	Outcome	% of total incidents
Survival to hosp discharge	RE1K	Outcome	% Survival

RF1 - CORE INDICATOR: RECEIVING FACILITIES			
SECTION 4: SYSTEM OPERATIONS			
COMPONENT: RECEIVING FACILITY			
SUBJECT: PATIENT DESTINATION PROFILES			
Sub-QUALITY INDICATOR	NDEX	CLASS	REPORTED INDICATOR ITEM
Transfers	RF1A	Structural	% transfers per total received
Diversion	RF1B	Structural	% diversions per total designated transports
Lapse Transport Time – Pt Diversion	RF1C	Process	Average lapse transport time per pt diversion
Transfer due to cost	RF1D	Structural	% of all transfers
Transfer due to higher level of medical care	RF1E	Structural	% of all transfers

RS1 - CORE INDICATOR: RESPONSE			
SECTION 4: SYSTEM OPERATIONS			
COMPONENT: RESPONSE			
SUBJECT: RESPONSE UNIT			
Sub-QUALITY INDICATOR	NDEX	CLASS	REPORTED INDICATOR ITEM
Response Unit Queue Time	RS1A	Process	Lapse time PSAP Call effect to unit enroute
Response Unit Roll Time	RS2B	Process	Lapse time unit enroute to on-scene

SK1 - CORE INDICATOR: PREHOSPITAL ADVANCED PROVIDER SKILLS			
SECTION I: MEDICAL CARE			
COMPONENT: CLINICAL			
SUBJECT: SKILL RATES			
Sub-QUALITY INDICATOR	NDEX	CLASS	REPORTED INDICATOR ITEM
Adult ET – oral frequency	SK1A	Structural	frequency performed per year per licensed personnel
Adult ET – oral Insertion	SK1B	Process	% insertion per total attempts
Adult ET –nasal frequency	SK1C	Structural	frequency performed per year per licensed personnel total
Adult ET - nasal Insertion	SK1D	Process	% insertion per total attempts
Ped ET – oral frequency	SK1E	Structural	frequency performed per year per licensed personnel
Ped ET - oral Insertion	SK1F	Process	% insertion per total attempts
Ped IV frequency	SK1G	Structural	frequency performed per year per licensed personnel
Ped IV Insertion	SK1H	Process	% insertion per total attempts
Ped IO frequency	SK1I	Structural	frequency performed per year per licensed personnel
Ped IO Insertion	SK1J	Process	% insertion per total attempts

TH1 - CORE INDICATOR: DESIGNATED TRAUMA HOSPITALS			
SECTION 4: SYSTEM OPERATIONS			
COMPONENT: DESIGNATED TRAUMA HOSPITALS			
SUBJECT: ACTIVITY			
Sub-QUALITY INDICATOR	NDEX	CLASS	REPORTED INDICATOR ITEM
Designated Trauma Hospitals per Response Area	TH1A	Structural	Number of Designated Trauma Hospitals per Response Area
Trauma Cases received per 24 hrs	TH1B	Structural	Average Number of Trauma Cases received per 24 hrs

TR1 - CORE INDICATOR: CRITICAL TRAUMA			
SECTION I: MEDICAL CARE			
COMPONENT: CLINICAL			
SUBJECT: TRAUMA			
Sub-QUALITY INDICATOR	INDEX	CLASS	REPORTED INDICATOR ITEM
Frequency Blunt Mechanism	TR1A	Structural	% of total incidents
Frequency Penetrating Mechanism	TR1B	Structural	% of total incidents
Frequency Pediatric	TR1C	Structural	% of total incidents
Frequency Head, Neck, Face	TR1D	Structural	% of total incidents
Frequency Chest	TR1E	Structural	% of total incidents
Frequency Abdomen	TR1F	Structural	% of total incidents
Frequency Burns	TR1G	Structural	% of total incidents
Lapse time on scene>10 min	TR1H	Process	% of total incidents
Transport time > 10 min	TR1I	Process	% of total incidents
Transport time > 20 min	TR1J	Process	% of total incidents
Triage to Specialty Facility	TR1K	Process	% of total incidents
Advanced Airway Inserted	TR 1L	Process	% of total incidents
Prehospital Oxygenation	TR1M	Process	% o O2 > 98%
Survival to ED admit	TR1N	Outcome	% of total incidents
Survival to hosp discharge	TR1O	Outcome	% of total incidents

<b>CORE INDICATOR INDEX # AC2A</b>	<b><u>ACCESS &amp; UTILIZATION</u></b>	
<b>Measure</b>	<b><u>EMS Call Load – 911 PSAP</u></b>	
<b>CORE INDICATOR REF #AC2</b>	SYSTEM OPERATIONS ACCESS & UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure number of 911 calls for EMS services received by a Public Access Answering Point (PSAP) during a specified twenty-four (24) hour period of time.	
<b>Classification</b>	<input type="checkbox"/> System Operations - Access	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> Number per 24 hr period	
<b>Display Format</b>	<input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - Yes <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> Yes	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> 24 hour period of time	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> PSAP's which receive EMS Service Calls by 911 <input type="checkbox"/> PSAP's which Operate 24 hours <input type="checkbox"/> All hours recorded within a full day of PSAP service	<input type="checkbox"/> EMSA#  <input type="checkbox"/> EMSA#  <input type="checkbox"/> EMSA#
<b>Denominator Data Source</b>	<input type="checkbox"/> PSAP Records <input type="checkbox"/> EMS Provider Records	



<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the total number of 911 calls received by PSAP where caller request EMS services	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Calls received by PSAP <input type="checkbox"/> 911 calls where caller request EMS services	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Numerator Data Source</b>	<input type="checkbox"/> PSAP Records <input type="checkbox"/> EMS Provider Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> (N) 911 EMS calls received per (D-24) hour period.	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> N per D	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> PSAP Identifier <input type="checkbox"/> Scene Address <input type="checkbox"/> Response Unit <input type="checkbox"/> Time of Call	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by PSAP <input type="checkbox"/> by Hour <input type="checkbox"/> by Incident type	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Calls where EMS service not requested <input type="checkbox"/> Calls not received by 911 phone line	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association. Circulation, 2000; 102: Suppl.1</li> <li>Clawson J: Regulations and standards for emergency medical dispatchers; a model for state or region, Emergency medical Services 13:4, 1984</li> <li>Clawson, J.J (1989, May-June). Emergency Medical Dispatching. Prehospital and Disaster Medicine, p. 125-152</li> <li>Davis, C. 1998, May-June). Touring Americas PSAP's: US Communication Centers. 9-1-1 Magazine, 52</li> <li>Gilbert, S. (1998, July-August). Pathway management – Back to basics. 9-1-1 magazine, 64</li> <li>National Emergency Number Assn (1999). How 911 works. On-Line <a href="http://www.nena911.org">www.nena911.org</a>.</li> <li>Stratton, S: Triage by emergency medical dispatchers, Prehospital Disaster Medicine 7:379, 1992</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project 2002	

<b>CORE INDICATOR INDEX # AC2B</b>	<b><u>ACCESS &amp; UTILIZATION</u></b>	
<b>Measure</b>	<b><u>EMS Call Effect Load – 911 PSAP</u></b>	
<b>CORE INDICATOR REF #AC2</b>	SYSTEM OPERATIONS ACCESS & UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure number of 911 calls for EMS services which are received (Effectuated) by responding EMS units by a Public Access Answering Point (PSAP) during a specified twenty-fours (24) hour period of time.	
<b>Classification</b>	<input type="checkbox"/> System Operations - Access	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> Number per 24 hr period	
<b>Display Format</b>	<input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - Yes <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> Yes	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> 24 hour period of time	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> PSAP's which receive EMS Service Calls by 911 <input type="checkbox"/> PSAP's which Operate 24 hours <input type="checkbox"/> All hours recorded within a full day of PSAP service	<input type="checkbox"/> EMSA#  <input type="checkbox"/> EMSA#  <input type="checkbox"/> EMSA#
<b>Denominator Data Source</b>	<input type="checkbox"/> PSAP Records	

	<input type="checkbox"/> EMS Provider Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the total number of 911 calls received by PSAP and communicated (Effectuated) to a responding EMS unit	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
<b>Numerator Data Source</b>	<input type="checkbox"/> PSAP Records <input type="checkbox"/> EMS Provider Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) shown per 24 hour denominator value (D)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> (N) 911 EMS calls effectuated per (D-24) hour period.	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> PSAP Identifier <input type="checkbox"/> Scene Address <input type="checkbox"/> Response Unit <input type="checkbox"/> Time of Call	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by PSAP <input type="checkbox"/> by Hour <input type="checkbox"/> by Incident type <input type="checkbox"/> by Responding unit	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA#
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Calls where EMS service not requested <input type="checkbox"/> Calls not received by 911 phone line <input type="checkbox"/> Calls where EMS Response Unit not notified	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association. Circulation, 2000; 102: Suppl.1</li> <li>Clawson J: Regulations and standards for emergency medical dispatchers; a model for state or region, Emergency medical Services 13:4, 1984</li> <li>Clawson, J.J (1989, May-June). Emergency Medical Dispatching. Prehospital and Disaster Medicine, p. 125-152</li> <li>Davis, C. 1998, May-June). Touring Americas PSAP's: US Communication Centers. 9-1-1 Magazine, 52</li> <li>Gilbert, S. (1998, July-August). Pathway management – Back to basics. 9-1-1 magazine, 64</li> <li>National Emergency Number Assn (1999). How 911 works. On-Line <a href="http://www.nena911.org">www.nena911.org</a>.</li> <li>Stratton, S: Triage by emergency medical dispatchers, Prehospital Disaster Medicine 7:379, 1992</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project 2002	

<b>CORE INDICATOR INDEX # AC2C</b>	<b>ACCESS &amp; UTILIZATION</b>	
<b>Measure</b>	<b>Lapse Time: First Ring to Call Pick Up 911 PSAP</b>	
<b>CORE INDICATOR REF #AC2</b>	SYSTEM OPERATIONS ACCESS & UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure the average lapse time in minutes + seconds from the beginning of first ring to call pick up for all 911 calls for EMS services which are received by a Public Access Answering Point (PSAP)	
<b>Classification</b>	<input type="checkbox"/> System Operations - Access	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Efficiency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> Average time in Minutes + Seconds	
<b>Display Format</b>	<input type="checkbox"/> Cube Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - Yes <input type="checkbox"/> variance - Yes <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> Yes	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the total number of 911 calls received by PSAP where a request for EMS services is accepted	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> All calls received by a PSAP's where there is a request for EMS Services <input type="checkbox"/> All Calls reviewed during a specified period of time. Specified period of time; i.e. 1 month, year, etc. time must be the same for numerator data	<input type="checkbox"/> EMSA# <input type="checkbox"/> EMSA# <input type="checkbox"/> EMSA# <input type="checkbox"/> EMSA#
<b>Denominator Data Source</b>	<input type="checkbox"/> PSAP Records <input type="checkbox"/> EMS Provider Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> Total aggregate number when lapsed times from each call are all added together.	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> All lapse times from first ring to call pick up by PSAP <input type="checkbox"/> 911 calls where caller request EMS services <input type="checkbox"/> Specified period of time; i.e. 1 month, year, etc. time must be the same for numerator data	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Numerator Data Source</b>	<input type="checkbox"/> PSAP Records	

	<input type="checkbox"/> EMS Provider Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value total of lapse times added together (N) per number of calls received by PSAP (D)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> (N) total time in minutes + seconds per total calls received per (D-24) hour period.	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> PSAP Identifier <input type="checkbox"/> Scene Address <input type="checkbox"/> Response Unit <input type="checkbox"/> Time of Call	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by PSAP <input type="checkbox"/> by Time of Day <input type="checkbox"/> by Incident type <input type="checkbox"/> by Responding unit	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA#
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Calls where EMS service not requested <input type="checkbox"/> Calls not received by 911 phone line	
<b>References</b>	<ul style="list-style-type: none"> <li>• Clawson, J.J (1989, May-June). Emergency Medical Dispatching. Prehospital and Disaster Medicine, p. 125-152</li> <li>• Davis, C. 1998, May-June). Touring Americas PSAP's: US Communication Centers. 9-1-1 Magazine, 52</li> <li>• Gilbert, S. (1998, July-August). Pathway management – Back to basics. 9-1-1 magazine, 64</li> <li>• National Emergency Number Assn (1999). How 911 works. On-Line <a href="http://www.nena911.org">www.nena911.org</a>.</li> <li>• American Heart Association. Circulation, 2000; 102: Suppl.1</li> <li>• American Heart Association. Circulation, 2000; 102: Suppl.1</li> <li>• Clawson J: Regulations and standards for emergency medical dispatchers; a model for state or region, Emergency medical Services 13:4, 1984</li> <li>• Clawson, J.J (1989, May-June). Emergency Medical Dispatching. Prehospital and Disaster Medicine, p. 125-152</li> <li>• Davis, C. 1998, May-June). Touring Americas PSAP's: US Communication Centers. 9-1-1 Magazine, 52</li> <li>• Gilbert, S. (1998, July-August). Pathway management – Back to basics. 9-1-1 magazine, 64</li> <li>• National Emergency Number Assn (1999). How 911 works. On-Line <a href="http://www.nena911.org">www.nena911.org</a>.</li> </ul> <p>Stratton, S: Triage by emergency medical dispatchers, Prehospital Disaster Medicine 7:379, 1992</p>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project 2002	

<b>CORE INDICATOR INDEX # AC2D</b>	<b>ACCESS &amp; UTILIZATION</b>	
<b>Measure</b>	<b>Lapse Time: Call Effect 911 PSAP</b>	
<b>CORE INDICATOR REF #AC2</b>	SYSTEM OPERATIONS ACCESS & UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure the average lapse time in minutes + seconds from the time a call is picked up by a Public Access Answering Point (PSAP) until the call is effected (transferred or broadcast and acknowledged) by a responding EMS unit.	
<b>Classification</b>	<input type="checkbox"/> System Operations - Access	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Efficiency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> Average time in Minutes + Seconds	
<b>Display Format</b>	<input type="checkbox"/> Cube Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - Yes <input type="checkbox"/> variance - Yes <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> Yes	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the total number of 911 calls received by PSAP where a request for EMS services is effected	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> All calls received by a PSAP's where there is a request for EMS Services <input type="checkbox"/> All Calls reviewed during a specified period of time. <input type="checkbox"/> Specified period of time; i.e. 1 month, year, etc. time must be the same for numerator data	<input type="checkbox"/> EMSA# <input type="checkbox"/> EMSA# <input type="checkbox"/> EMSA# <input type="checkbox"/> EMSA#
<b>Denominator Data Source</b>	<input type="checkbox"/> PSAP Records <input type="checkbox"/> EMS Provider Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> Total aggregate number when lapsed times from each EMS call effected is all added together.	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> All lapse times from first ring to call pick up <input type="checkbox"/> 911 Calls received by PSAP <input type="checkbox"/> 911 calls where caller request EMS services <input type="checkbox"/> Specified period of time; i.e. 1 month, year, etc. time must be the same for	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #

	numerator data	
<b>Numerator Data Source</b>	<input type="checkbox"/> PSAP Records <input type="checkbox"/> EMS Provider Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value total of lapse times added together (N) per number of calls received by PSAP (D)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> (N) total time in minutes + seconds per total calls received per (D-24) hour period.	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> PSAP Identifier <input type="checkbox"/> Scene Address <input type="checkbox"/> Response Unit <input type="checkbox"/> Time of Call	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by PSAP <input type="checkbox"/> by Time of Day <input type="checkbox"/> by Incident type <input type="checkbox"/> by Responding unit	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA#
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Calls where EMS service not requested <input type="checkbox"/> Calls not received by 911 phone line	
<b>References</b>	<ul style="list-style-type: none"> <li>• Clawson, J.J (1989, May-June). Emergency Medical Dispatching. Prehospital and Disaster Medicine, p. 125-152</li> <li>• Davis, C. 1998, May-June). Touring Americas PSAP's: US Communication Centers. 9-1-1 Magazine, 52</li> <li>• Gilbert, S. (1998, July-August). Pathway management – Back to basics. 9-1-1 magazine, 64</li> <li>• National Emergency Number Assn (1999). How 911 works. On-Line <a href="http://www.nena911.org">www.nena911.org</a>.</li> <li>• American Heart Association. Circulation, 2000; 102: Suppl.1</li> <li>• American Heart Association. Circulation, 2000; 102: Suppl.1</li> <li>• Clawson J: Regulations and standards for emergency medical dispatchers; a model for state or region, Emergency medical Services 13:4, 1984</li> <li>• Clawson, J.J (1989, May-June). Emergency Medical Dispatching. Prehospital and Disaster Medicine, p. 125-152</li> <li>• Davis, C. 1998, May-June). Touring Americas PSAP's: US Communication Centers. 9-1-1 Magazine, 52</li> <li>• Gilbert, S. (1998, July-August). Pathway management – Back to basics. 9-1-1 magazine, 64</li> <li>• National Emergency Number Assn (1999). How 911 works. On-Line <a href="http://www.nena911.org">www.nena911.org</a>.</li> </ul> <p>Stratton, S: Triage by emergency medical dispatchers, Prehospital Disaster Medicine 7:379, 1992</p>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project 2002	

<b>CORE INDICATOR INDEX # AC3A</b>	<b><u>ACCESS &amp; UTILIZATION</u></b>	
<b>Measure</b>	<b><u>Call Load – EMS Dispatch Center</u></b>	
<b>CORE INDICATOR REF #AC2</b>	SYSTEM OPERATIONS ACCESS & UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure number of calls for EMS services received by an EMS Dispatch Center during a specified twenty-four (24) hour period of time.	
<b>Classification</b>	<input type="checkbox"/> System Operations - Access	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> Number per 24 hr period	
<b>Display Format</b>	<input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - Yes <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> Yes	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> 24 hour period of time	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> EMS Dispatch Center which receive EMS Service Calls by 911 <input type="checkbox"/> EMS Dispatch Center which Operate 24 hours <input type="checkbox"/> All hours recorded within a full day of EMS Dispatch Center service	<input type="checkbox"/> <b>EMSA#</b> <input type="checkbox"/> <b>EMSA#</b> <input type="checkbox"/> <b>EMSA#</b>
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Dispatch Center <input type="checkbox"/> PSAP Records <input type="checkbox"/> EMS Provider Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the total number of calls received by EMS Dispatch Center where caller request EMS services	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Calls received by EMS Dispatch Center <input type="checkbox"/> Calls where caller request EMS services	<input type="checkbox"/> <b>EMSA #</b> <input type="checkbox"/> <b>EMSA #</b>
<b>Numerator Data Source</b>	<input type="checkbox"/> PSAP Records <input type="checkbox"/> EMS Provider Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> (N) 911 EMS calls received per (D-24) hour period.	



<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> N per D	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> EMS Dispatch Center Identifier <input type="checkbox"/> Scene Address <input type="checkbox"/> Response Unit <input type="checkbox"/> Time of Call	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by EMS Dispatch Center <input type="checkbox"/> by Hour <input type="checkbox"/> by Incident type	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Calls where EMS service not requested <input type="checkbox"/> Calls not received by 911 phone line	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association. Circulation, 2000; 102: Suppl.1</li> <li>Clawson J: Regulations and standards for emergency medical dispatchers; a model for state or region, Emergency medical Services 13:4, 1984</li> <li>Clawson, J.J (1989, May-June). Emergency Medical Dispatching. Prehospital and Disaster Medicine, p. 125-152</li> <li>Davis, C. 1998, May-June). Touring Americas PSAP's: US Communication Centers. 9-1-1 Magazine, 52</li> <li>Gilbert, S. (1998, July-August). Pathway management – Back to basics. 9-1-1 magazine, 64</li> <li>National Emergency Number Assn (1999). How 911 works. On-Line <a href="http://www.nena911.org">www.nena911.org</a>.</li> <li>Stratton, S: Triage by emergency medical dispatchers, Prehospital Disaster Medicine 7:379, 1992</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project 2002	

<b>CORE INDICATOR INDEX # AC3B</b>	<b><u>ACCESS &amp; UTILIZATION</u></b>	
<b>Measure</b>	<b><u>EMS Call Effect Load – EMS Dispatch Center</u></b>	
<b>CORE INDICATOR REF #AC2</b>	SYSTEM OPERATIONS ACCESS & UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure number of calls for EMS services which are received (Effected) by responding EMS units by an EMS Dispatch Center during a specified twenty-four (24) hour period of time.	
<b>Classification</b>	<input type="checkbox"/> System Operations - Access	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> Number per 24 hr period	
<b>Display Format</b>	<input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - Yes <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> Yes	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> 24 hour period of time	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> EMS Dispatch Center which receive EMS Service Calls by 911 <input type="checkbox"/> EMS Dispatch Center which Operate 24 hours <input type="checkbox"/> All hours recorded within a full day of EMS Dispatch Center service	<input type="checkbox"/> <b>EMSA#</b> <input type="checkbox"/> <b>EMSA#</b> <input type="checkbox"/> <b>EMSA#</b>
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Dispatch Center Records <input type="checkbox"/> PSAP Records <input type="checkbox"/> EMS Provider Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the total number of calls received by EMS Dispatch Center and communicated (Effected) to a responding EMS unit	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Calls received by EMS Dispatch Center <input type="checkbox"/> calls where caller request EMS services Request communicated or broadcast to an appropriate EMS Unit for response.	<input type="checkbox"/> <b>EMSA #</b> <input type="checkbox"/> <b>EMSA #</b> <input type="checkbox"/> <b>EMSA #</b>
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Dispatch Center Records <input type="checkbox"/> PSAP Records	

	<input type="checkbox"/> EMS Provider Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) shown per 24 hour denominator value (D)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> (N) EMS calls effected per (D-24) hour period.	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> EMS Dispatch Center Identifier <input type="checkbox"/> Scene Address <input type="checkbox"/> Response Unit <input type="checkbox"/> Time of Call	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by EMS Dispatch Center <input type="checkbox"/> by Hour <input type="checkbox"/> by Incident type <input type="checkbox"/> by Responding unit	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA#
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Calls where EMS service not requested <input type="checkbox"/> Calls not received by PASP or emergency phone line <input type="checkbox"/> Calls where EMS Response Unit not notified	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association. Circulation, 2000; 102: Suppl.1</li> <li>Clawson J: Regulations and standards for emergency medical dispatchers; a model for state or region, Emergency medical Services 13:4, 1984</li> <li>Clawson, J.J (1989, May-June). Emergency Medical Dispatching. Prehospital and Disaster Medicine, p. 125-152</li> <li>Davis, C. 1998, May-June). Touring Americas PSAP's: US Communication Centers. 9-1-1 Magazine, 52</li> <li>Gilbert, S. (1998, July-August). Pathway management – Back to basics. 9-1-1 magazine, 64</li> <li>National Emergency Number Assn (1999). How 911 works. On-Line <a href="http://www.nena911.org">www.nena911.org</a>.</li> <li>Stratton, S: Triage by emergency medical dispatchers, Prehospital Disaster Medicine 7:379, 1992</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project 2002	

<b>CORE INDICATOR INDEX # AC3C</b>	<b><u>ACCESS &amp; UTILIZATION</u></b>	
<b>Measure</b>	<b><u>Lapse Time: First Ring to Call Pick Up Emergency Medical Dispatch Center</u></b>	
<b>CORE INDICATOR REF #AC2</b>	SYSTEM OPERATIONS ACCESS & UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure the average lapse time in minutes + seconds from the beginning of first ring to call pick up for all calls for EMS services which are received by a EMS Dispatch Center	
<b>Classification</b>	<input type="checkbox"/> System Operations - Access	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Efficiency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> Average time in Minutes + Seconds	
<b>Display Format</b>	<input type="checkbox"/> Cube Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - Yes <input type="checkbox"/> variance - Yes <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> Yes	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the total number of calls received by EMS Dispatch Center where a request for EMS services is accepted	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> All calls received by a EMS Dispatch Center where there is a request for EMS Services <input type="checkbox"/> All Calls reviewed during a specified period of time. <input type="checkbox"/> Specified period of time; i.e. 1 month, year, etc. time must be the same for numerator data	<input type="checkbox"/> <b>EMSA#</b> <input type="checkbox"/> <b>EMSA#</b> <input type="checkbox"/> <b>EMSA#</b> <input type="checkbox"/> <b>EMSA#</b>
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Dispatch Center Records <input type="checkbox"/> PSAP Records <input type="checkbox"/> EMS Provider Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> Total aggregate number when lapsed times from each call are all added together.	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> All lapse times from first ring to call pick up <input type="checkbox"/> Calls received by EMS Dispatch Center <input type="checkbox"/> calls where caller request EMS services <input type="checkbox"/> Specified period of time; i.e. 1 month, year, etc. time	<input type="checkbox"/> <b>EMSA #</b> <input type="checkbox"/> <b>EMSA #</b> <input type="checkbox"/> <b>EMSA #</b> <input type="checkbox"/> <b>EMSA #</b>

	must be the same for numerator data	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Dispatch Center Records <input type="checkbox"/> PSAP Records <input type="checkbox"/> EMS Provider Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value total of lapse times added together (N) per number of calls received by EMS Dispatch Center (D)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> (N) total time in minutes + seconds per total calls received per (D-24) hour period.	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> EMS Dispatch Center Identifier <input type="checkbox"/> Scene Address <input type="checkbox"/> Response Unit <input type="checkbox"/> Time of Call	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by EMS Dispatch Center <input type="checkbox"/> by Time of Day <input type="checkbox"/> by Incident type <input type="checkbox"/> by Responding unit	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Calls where EMS service not requested <input type="checkbox"/> Calls not received by emergency phone line	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association. Circulation, 2000; 102: Suppl.1</li> <li>Clawson J: Regulations and standards for emergency medical dispatchers; a model for state or region, Emergency medical Services 13:4, 1984</li> <li>Clawson, J.J (1989, May-June). Emergency Medical Dispatching. Prehospital and Disaster Medicine, p. 125-152</li> <li>Davis, C. 1998, May-June). Touring Americas PSAP's: US Communication Centers. 9-1-1 Magazine, 52</li> <li>Gilbert, S. (1998, July-August). Pathway management – Back to basics. 9-1-1 magazine, 64</li> <li>National Emergency Number Assn (1999). How 911 works. On-Line <a href="http://www.nena911.org">www.nena911.org</a>.</li> <li>Stratton, S: Triage by emergency medical dispatchers, Prehospital Disaster Medicine 7:379, 1992</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project 2002	

CORE INDICATOR INDEX # AC3D	ACCESS & UTILIZATION	
Measure	<u>Lapse Time: Call Effect Emergency Medical Dispatch Center</u>	
CORE INDICATOR REF #AC2	SYSTEM OPERATIONS ACCESS & UTILIZATION	
Objective	<input type="checkbox"/> to measure the average lapse time in minutes + seconds from the time a call is picked up by a EMS Dispatch Center until the call is effected (transferred or broadcast and acknowledged) by a responding EMS unit.	
Classification	<input type="checkbox"/> System Operations - Access	
Type of Measure	<input type="checkbox"/> Process	
Domain of Performance	<input type="checkbox"/> Efficiency	
Indicator Reporting Value	<input type="checkbox"/> Average time in Minutes + Seconds	
Display Format	<input type="checkbox"/> Cube Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
Frequency of Display	<input type="checkbox"/> Monthly x 12	
Measures of Central Tendency	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - Yes <input type="checkbox"/> variance - Yes <input type="checkbox"/> standard deviation - Yes	
Trending Analysis	<input type="checkbox"/> Yes	
Minimum Data Values	<input type="checkbox"/> 30 values per measure	
Sampling	<input type="checkbox"/> Periodic - Rate	
Aggregation	<input type="checkbox"/> Yes	
Blinded	<input type="checkbox"/> Yes	
Beta Testing	<input type="checkbox"/> None to Date	
Population Denominator (D)	<input type="checkbox"/> the total number of 911 calls received by EMS Dispatch Center where a request for EMS services is effected	
Denominator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> All calls received by a EMS Dispatch Center where there is a request for EMS Services <input type="checkbox"/> All Calls reviewed during a specified period of time. <input type="checkbox"/> Specified period of time; i.e. 1 month, year, etc. time must be the same for numerator data	<input type="checkbox"/> EMSA# <input type="checkbox"/> EMSA# <input type="checkbox"/> EMSA# <input type="checkbox"/> EMSA#
Denominator Data Source	<input type="checkbox"/> EMS Dispatch Center Records <input type="checkbox"/> PSAP Records <input type="checkbox"/> EMS Provider Records	
Population Subset Numerator (N)	<input type="checkbox"/> Total aggregate number when lapsed times from each EMS call effected is all added together.	
Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> All lapse times from first ring to call pick up <input type="checkbox"/> Calls received by EMS Dispatch Center <input type="checkbox"/> calls where caller request EMS services <input type="checkbox"/> Specified period of time; i.e. 1 month, year, etc. time	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #

	must be the same for numerator data	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Dispatch Center Records <input type="checkbox"/> PSAP Records <input type="checkbox"/> EMS Provider Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value total of lapse times added together (N) per number of calls received by EMS Dispatch Center (D)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> (N) total time in minutes + seconds per total calls received per (D-24) hour period.	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> EMS Dispatch Center Identifier <input type="checkbox"/> Scene Address <input type="checkbox"/> Response Unit <input type="checkbox"/> Time of Call	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by EMS Dispatch Center <input type="checkbox"/> by Time of Day <input type="checkbox"/> by Incident type <input type="checkbox"/> by Responding unit	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA#
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Calls where EMS service not requested <input type="checkbox"/> Calls not received by emergency phone line	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association. Circulation, 2000; 102: Suppl.1</li> <li>Clawson J: Regulations and standards for emergency medical dispatchers; a model for state or region, Emergency medical Services 13:4, 1984</li> <li>Clawson, J.J (1989, May-June). Emergency Medical Dispatching. Prehospital and Disaster Medicine, p. 125-152</li> <li>Davis, C. 1998, May-June). Touring Americas PSAP's: US Communication Centers. 9-1-1 Magazine, 52</li> <li>Gilbert, S. (1998, July-August). Pathway management – Back to basics. 9-1-1 magazine, 64</li> <li>National Emergency Number Assn (1999). How 911 works. On-Line <a href="http://www.nena911.org">www.nena911.org</a>.</li> <li>Stratton, S: Triage by emergency medical dispatchers, Prehospital Disaster Medicine 7:379, 1992</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project 2002	

<b>Core Indicator Index # BH1A</b>	<b>BASE HOSPITALS</b>	
<b>Measure</b>	<b>Base Hospitals per Response Area</b>	
<b>CORE INDICATOR REF #BH1</b>	<b>SYSTEM OPERATIONS</b> BASE HOSPITALS – MEDICAL CONTROL	
<b>Objective</b>	<input type="checkbox"/> to measure the number of designated base hospitals serving a specific-geographic EMS response area.	
<b>Classification</b>	<input type="checkbox"/> System operations – medical control	
<b>Type of Measure</b>	<input type="checkbox"/> Structural	
<b>Domain of Performance</b>	<input type="checkbox"/> Component	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Geo Map	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - No <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 1 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the designated geographic response area. Area defined by local EMS authority a specific EMS response area.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Specific geographic area designated as an EMS response area.	<input type="checkbox"/> EMSA # <input type="checkbox"/>
<b>Denominator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Base Hospital <input type="checkbox"/> EMS Service Provider	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of EMS designated base hospitals located within the response area as defined in denominator.	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Base Hospitals as designated by the local EMS Authority <input type="checkbox"/> Hospitals that function in a on-line medical control capacity	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Base Hospital <input type="checkbox"/> EMS Service Provider	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> NA	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> NA	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/>	<input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/>	<input type="checkbox"/> EMSA #



		<input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-designated hospitals <input type="checkbox"/> non-designated EMS response areas	
<b>References</b>	<ul style="list-style-type: none"> <li>• Neely KW et al: The effect of base hospital contact on ambulance destination, Ann of Emerg Med 19:906-909, 1990</li> <li>• Holroyd B, Knopp R, Kallsen G: Medical control: quality assurance in Prehospital care, JAMA 256(8): 1027-1031, 1986</li> <li>• National Highway Traffic Safety Administration and Health resources and Services Administration. (2000). Agenda for the Future; a systems approach. Washington D.C.</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>Core Indicator Index # BH1B</b>	<b>BASE HOSPITALS</b>	
<b>Measure</b>	<b>Caseloads per 24 hrs - Base Hospitals</b>	
<b>CORE INDICATOR REF #BH1</b>	<b>SYSTEM OPERATIONS BASE HOSPITALS – MEDICAL CONTROL</b>	
<b>Objective</b>	<input type="checkbox"/> to measure the average number of calls made to a designated base hospital for medical control service during a 24-hour period.	
<b>Classification</b>	<input type="checkbox"/> System operations – medical control	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Component	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> Average number of calls per 24 hr	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> Yes	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> 24-hour period of time.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Specific 24 hours	<input type="checkbox"/> EMSA # <input type="checkbox"/>
<b>Denominator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Base Hospital	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of EMS calls for medical control service made to a designated base hospital	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Base Hospitals as designated by the local EMS Authority <input type="checkbox"/> Calls made to a designated base hospital to provide on-line medical control to a EMS service provider	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Base Hospital	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> NA	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> NA	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
		<input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> By Time of Day <input type="checkbox"/> By Base Hospital <input type="checkbox"/> By EMS Response Calls <input type="checkbox"/> By Chief Complaint	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #

	<input type="checkbox"/> By Orders Given	<input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-designated Base Hospitals <input type="checkbox"/> Calls not made to a designated Base Hospital	
<b>References</b>	<ul style="list-style-type: none"> <li>• Neely KW et al: The effect of base hospital contact on ambulance destination, Ann of Emerg Med 19:906-909, 1990</li> <li>• Holroyd B, Knopp R, Kallsen G: Medical control: quality assurance in Prehospital care, JAMA 256(8): 1027-1031, 1986</li> <li>• National Highway Traffic Safety Administration and Health resources and Services Administration. (2000). Agenda for the Future; a systems approach. Washington D.C</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>Core Indicator Index # BH1C</b>	<b><u>BASE HOSPITALS</u></b>	
<b>Measure</b>	<b><u>Caseloads per Authorized Personnel - Base Hospital</u></b>	
<b>CORE INDICATOR REF #BH1</b>	<b>SYSTEM OPERATIONS BASE HOSPITALS – MEDICAL CONTROL</b>	
<b>Objective</b>	<input type="checkbox"/> to measure the average number of calls made to a designated base hospital for medical control per number of Authorized personnel on duty to answer calls.	
<b>Classification</b>	<input type="checkbox"/> System operations – medical control	
<b>Type of Measure</b>	<input type="checkbox"/> Structural	
<b>Domain of Performance</b>	<input type="checkbox"/> Component	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> Average number of calls per Authorized On-Duty Personnel	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> Yes	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> Number of on-duty Authorized Personnel over a specified period of time which is the same time as defined in numerator	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Personnel Authorized by local EMS Authority to accept EMS calls and provide medical control <input type="checkbox"/> Personnel on-duty and available to respond immediately to calls at designated base hospital	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA#
<b>Denominator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Base Hospital	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of EMS calls for medical control service made to a designated base hospital over a specified period of time which is the same time as defined in denominator	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Base Hospitals as designated by the local EMS Authority <input type="checkbox"/> Calls made to a designated base hospital to provide on-line medical control to a EMS service provider	<input type="checkbox"/> EMSA#  <input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Base Hospital	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> NA	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> NA	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>

	<input type="checkbox"/>	<input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> By Time of Day <input type="checkbox"/> By Base Hospital <input type="checkbox"/> By EMS Response Calls <input type="checkbox"/> By Chief Complaint <input type="checkbox"/> By Orders Given	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-designated Base Hospitals <input type="checkbox"/> Calls not made to a designated Base Hospital <input type="checkbox"/> Personnel not authorized by local EMS Authority to accept calls at designated base hospital. <input type="checkbox"/> Personnel not on-duty and available to respond immediately to calls at designated base hospital.	
<b>References</b>	<ul style="list-style-type: none"> <li>• Neely KW et al: The effect of base hospital contact on ambulance destination, Ann of Emerg Med 19:906-909, 1990</li> <li>• Holroyd B, Knopp R, Kallsen G: Medical control: quality assurance in Prehospital care, JAMA 256(8): 1027-1031, 1986</li> <li>• National Highway Traffic Safety Administration and Health resources and Services Administration. (2000). Agenda for the Future; a systems approach. Washington D.C</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>Core Indicator Index # BH1D</b>	<b><u>BASE HOSPITALS</u></b>	
<b>Measure</b>	<b><u>Lapse Time to Call Pick Up - Base Hospitals</u></b>	
<b>CORE INDICATOR REF #BH1</b>	<b>SYSTEM OPERATIONS</b> BASE HOSPITALS – MEDICAL CONTROL	
<b>Objective</b>	<input type="checkbox"/> to measure the average lapse in time in minutes + seconds from first ring (phone or radio) to call pick up at a designated base hospital when a request for medical control direction is serving a specific-geographic EMS response area.	
<b>Classification</b>	<input type="checkbox"/> System operations – medical control	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Component	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> Average Minutes + Seconds call Pick Up Tme	
<b>Display Format</b>	<input type="checkbox"/> Cube Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> Yes	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the total number of calls (phone or radio) received by a designated base hospital during a specified time period that is the same as defined in numerator	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> All calls received (phone or radio) by designated base hospital for medical control services.	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA#
<b>Denominator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Base Hospital <input type="checkbox"/> EMS Service Provider	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the lapse of time measured in minutes + seconds from first ring/alert (phone or radio) to the time when communication device is picked up for response. The lapsed times covering a	

	specific period of time that is the same as defined by denominator shall be added together to obtain one aggregated number.	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> All calls received by a designated base hospital as a request for medical control services. <input type="checkbox"/> Hospitals that function in a on-line medical control capacity	<input type="checkbox"/> EMSA#  <input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Base Hospital <input type="checkbox"/> EMS Service Provider	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator (D) = Average Call Pick Up Time	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> N/D = Average Call Pick Up Time– Base Hospital	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/>	<input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> By Hospital <input type="checkbox"/> By Call Type <input type="checkbox"/> By Time of Day <input type="checkbox"/>	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-designated base hospitals <input type="checkbox"/> calls where medical control services are not required	
<b>References</b>	<ul style="list-style-type: none"> <li>• Neely KW et al: The effect of base hospital contact on ambulance destination, Ann of Emerg Med 19:906-909, 1990</li> <li>• Holroyd B, Knopp R, Kallsen G: Medical control: quality assurance in Prehospital care, JAMA 256(8): 1027-1031, 1986</li> <li>• National Highway Traffic Safety Administration and Health resources and Services Administration. (2000). Agenda for the Future; a systems approach. Washington D.C</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

CORE INDICATOR INDEX # CA1A	PULSELESS V-FIB or V-TACH - UNWITNESSED	
Measure	CPR Performed by Bystander	
Objective	<input type="checkbox"/> to measure % of patients who receive bystander CPR after suffering a pulseless ventricular fibrillation (VF) or ventricular tachycardia (VT) event which is unwitnessed and treated by EMS personnel	
Classification	<input type="checkbox"/> medical care - clinical	
Type of Measure	<input type="checkbox"/> Process	
Domain of Performance	<input type="checkbox"/> Patient Care	
Indicator Reporting Value	<input type="checkbox"/> %	
Display Format	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
Frequency of Display	<input type="checkbox"/> Monthly x 12	
Measures of Central Tendency	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
Trending Analysis	<input type="checkbox"/> NA	
Minimum Data Values	<input type="checkbox"/> 30 values per measure	
Sampling	<input type="checkbox"/> Periodic - Rate	
Aggregation	<input type="checkbox"/> Yes	
Blinded	<input type="checkbox"/> Yes	
Beta Testing	<input type="checkbox"/> None to Date	
Population Denominator (D)	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event unwitnessed by EMS personnel	
Denominator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT event was in prehospital setting <input type="checkbox"/> patient VF & VT event was not witnessed by EMS personnel <input type="checkbox"/> specified time period	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52 <input type="checkbox"/> EMSA #11
Denominator Data Source	<input type="checkbox"/> EMS Medical Records	
Population Subset Numerator (N)	<input type="checkbox"/> the number of patients who receive bystander CPR in Prehospital setting	
Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> bystander CPR is performed by individuals (professional or non-professional) who are on scene prior to arrival of on-duty EMS personnel <input type="checkbox"/> Subset of denominator	<input type="checkbox"/> discharge status (TBD)
Numerator Data Source	<input type="checkbox"/> hospital discharge records <input type="checkbox"/> OSHPD discharge record	
Description of Indicator	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied	



<b>Formula</b>	by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> N / D = %	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by number of defibrillations <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (99.62) <input type="checkbox"/> EMSA #25
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where resuscitation was not attempted by EMS personnel <input type="checkbox"/> event witnessed by EMS personnel <input type="checkbox"/> Bystander CPR not performed	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX # CA1B</b>	<b>PULSELESS V-FIB or V-TACH - UNWITNESSED</b>	
<b>Measure</b>	<b><u>Defibrillation Performed by Bystander</u> Public Access Defibrillation (PAD)</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who have defibrillation performed by lay public after suffering a pulseless ventricular fibrillation (VF) or ventricular tachycardia (VT) event which is unwitnessed and treated by EMS personnel	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event unwitnessed by EMS personnel	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT event was in prehospital setting <input type="checkbox"/> patient VF & VT event was not witnessed by EMS personnel <input type="checkbox"/> specified time period	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52 <input type="checkbox"/> EMSA #11
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive defibrillation performed by lay person	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> defibrillation performed by lay public (professional or non-professional) prior to arrival of on-duty EMS personnel	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula</b>	<input type="checkbox"/> $N / D = \%$	

<b>Numeric Expression</b>		
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where resuscitation was not attempted by EMS personnel <input type="checkbox"/> event witnessed by EMS personnel <input type="checkbox"/> Defib performed on-duty EMS personnel <input type="checkbox"/> patient has not survived to hospital discharge	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX # CA1C</b>	<b>PULSELESS V-FIB or V-TACH - UNWITNESSED</b>	
<b>Measure</b>	<b>Automatic External Defibrillation (AED) <u>Performed by EMS Personnel</u></b>	
<b>CORE INDICATOR REF #CA1</b>	<b>CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who receive defibrillation by automatic or semi-automatic external defibrillator and performed by on-duty EMS personnel	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Patient Care	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event unwitnessed by EMS personnel	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT event was in prehospital setting <input type="checkbox"/> patient VF & VT event was not witnessed by EMS personnel <input type="checkbox"/> specified time period	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52  <input type="checkbox"/> EMSA #11
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> defibrillation by automatic or semi-automatic external defibrillator and performed by on-duty EMS personnel	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patients who survive to hospital discharge	<input type="checkbox"/> discharge status (TBD)
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical records <input type="checkbox"/>	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	

Linkage	Linkage Options	EMSA Data Elements
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
Stratification	Options	EMSA Data Elements
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73
Indicator Exclusion Criteria	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where resuscitation was not attempted by EMS personnel <input type="checkbox"/> use of manual defibrillator <input type="checkbox"/> defib performed by lay public or on-duty medical professional <input type="checkbox"/> event witnessed by EMS personnel <input type="checkbox"/> patient has not survived to hospital discharge	
References	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
Source	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX # CA1D</b>	<b>PULSELESS V-FIB or V-TACH - UNWITNESSED</b>	
<b>Measure</b>	<b><u>Lapse of Time to First Shock 10 mins or less</u></b>	
<b>CORE INDICATOR REF #CA1</b>	<b>CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION PULSELESS V-FIB V-TACH - UNWITNESSED</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who receive defibrillation in 10 minutes or less from the estimated time of onset for a pulseless V-Fib/Tach event	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> process	
<b>Domain of Performance</b>	<input type="checkbox"/> Patient Care	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event not witnessed by EMS personnel	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient VF & VT event was not witnessed by EMS personnel <input type="checkbox"/> specified time period	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54  <input type="checkbox"/> EMSA #52  <input type="checkbox"/> EMSA #11
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive shock within 10 mins or less from estimated time of onset for pulseless V-Fib/Tach event.	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patients who receive first defibrillatory shock within 10 mins or less <input type="checkbox"/> estimated time of onset is dependent upon the best subjective assessment or evidence as witnessed by	<input type="checkbox"/> EMSA#

	EMS personnel on scene.	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where resuscitation was not attempted by EMS personnel <input type="checkbox"/> Time to shock greater than 10 mins <input type="checkbox"/> event witnessed by EMS personnel <input type="checkbox"/> patient has not survived to hospital discharge	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # CA1E</b>	<b><u>PULSELESS V-FIB/TACH UNWITNESSED</u></b>	
<b>Measure</b>	<b><u>Prehospital Defibrillation: Frequency of Administration</u></b>	
<b>CORE INDICATOR REF</b> <b>#CA1</b>	<b>CARDIAC - ADULT</b> <b>TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering a pulseless ventricular fibrillation (VF) or ventricular tachycardia (VT) event, which is, unwitnessed who receive one or more defibrillatory shocks in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Frequency, Compliance	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for pulseless V-Fib/Tach unwitnessed	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for pulseless V-Fib/Tach. <input type="checkbox"/> Event is unwitnessed by EMS personnel <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset</b> <b>Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive one or more defibrillatory shocks in the Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patients who receive shock from any type of defib unit <input type="checkbox"/> patient who receive shock from any provider; lay or professional <input type="checkbox"/> patient's who are treated in prehospital setting	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	



<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> N / D = %	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where pulseless V-Fib/V-Tach not present <input type="checkbox"/> event was witnessed by EMS personnel <input type="checkbox"/> event not treated by EMS personnel	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

CORE INDICATOR INDEX # CA1F	<b>PULSELESS V-FIB or V-TACH - UNWITNESSED</b>	
<b>Measure</b>	<b>Prehospital Defibrillation: Number of Shocks Delivered per Patient</b>	
CORE INDICATOR REF #CA1	CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION PULSELESS V-FIB V-TACH - UNWITNESSED	
<b>Objective</b>	<input type="checkbox"/> to measure the average number of shocks delivered per patient after suffering a pulseless ventricular fibrillation (VF) or ventricular tachycardia (VT) event which is unwitnessed and treated by EMS personnel	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Pt Care	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event unwitnessed by EMS personnel	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient VF & VT event was not witnessed by EMS personnel <input type="checkbox"/> specified time period	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54  <input type="checkbox"/> EMSA #52  <input type="checkbox"/> EMSA #11
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of shock delivered.	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Shocks delivered by a any type of defib unit <input type="checkbox"/> shocks delivered by any person (professional or non-professional)	<input type="checkbox"/> EMSA#

	<input type="checkbox"/> subset of denominator <input type="checkbox"/> same time period as denominator	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where resuscitation was not attempted by EMS personnel <input type="checkbox"/> event witnessed by EMS personnel <input type="checkbox"/> patient has not survived to hospital discharge	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX # CA1G</b>	<b>PULSELESS V-FIB or V-TACH - UNWITNESSED</b>	
<b>Measure</b>	<b><u>Prehospital Defibrillation: Desired Effect Achieved</u></b>	
<b>CORE INDICATOR REF #CA1</b>	<b>CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION PULSELESS V-FIB V-TACH - UNWITNESSED</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who achieve a desired therapeutic effect from one or more defibrillation shocks in the Prehospital setting	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event unwitnessed and are shocked by EMS personnel	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient VF & VT event was not witnessed by EMS personnel <input type="checkbox"/> pt was shocked by any type of defib unit <input type="checkbox"/> patient was shocked one or more times <input type="checkbox"/> specified time period	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52 <input type="checkbox"/> EMSA #11
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients where a desired effect is achieved from one or more shocks	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient's who are treated in prehospital setting <input type="checkbox"/> Desired effect is any change in patient status where there is full or partial	<input type="checkbox"/> discharge status (TBD)

	<input type="checkbox"/> relief of symptoms <input type="checkbox"/> desired effect is reported by EMS personnel through observation, assessment or by verbal questioning of patient.	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by number of defibrillations <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (99.62) <input type="checkbox"/> EMSA #25
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where defib was not attempted by EMS personnel <input type="checkbox"/> events where desired effect not achieved <input type="checkbox"/> event witnessed by EMS personnel <input type="checkbox"/> patient has not survived to hospital discharge	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> Index # CA1H	<b><u>PULSELESS V-FIB/TACH UNWITNESSED</u></b>	
<b>Measure</b>	<b><u>Epinephrine: Frequency of Administration</u></b>	
<b>CORE INDICATOR REF</b> #CA1	<b>CARDIAC - ADULT</b> TREATMENT PROTOCOL UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from chest pain of suspected cardiac origin that receive epinephrine in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Frequency, Compliance	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients who suffer a pulseless V-Fib/Tach event - unwitnessed in Prehospital setting	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for pulseless V-Fib/Tach. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #

<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive epinephrine	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient's who are treated in prehospital setting <input type="checkbox"/> patients who receive one or more doses of epinephrine <input type="checkbox"/> subset of denominator	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where patient not resuscitated by EMS personnel <input type="checkbox"/> event witnessed by EMS personnel <input type="checkbox"/> event not treated by EMS personnel	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX # CA1I</b>	<b>PULSELESS V-FIB or V-TACH - UNWITNESSED</b>	
<b>Measure</b>	<b>Epinephrine: Desired Effect Achieved</b>	
<b>CORE INDICATOR REF #CA1</b>	<b>CARDIAC - ADULT</b> TREATMENT PROTOCOL UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from chest pain of suspected cardiac origin that achieve a desired therapeutic effect from the administration of epinephrine in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for pulseless V-Fib/Tach	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for pulseless V-Fib/Tach -unwitnessed. <input type="checkbox"/> patients who receive epinephrine any modality or device. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive epinephrine where a desired effect is achieved in the Prehospital setting	



Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient's who are treated in prehospital setting <input type="checkbox"/> Desired effect is any change in patient status where there is full or partial relief of symptoms <input type="checkbox"/> desired effect is reported by EMS personnel through observation, assessment or by verbal questioning of patient. <input type="checkbox"/> subset of denominator	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
Linkage	Linkage Options	EMSA Data Elements
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
Stratification	Options	EMSA Data Elements
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where cardiac chest pain was not chief complaint <input type="checkbox"/> event witnessed by EMS personnel <input type="checkbox"/> epinephrine not administered <input type="checkbox"/> desired effect from epinephrine administration not reported. <input type="checkbox"/> event not treated by EMS personnel	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> Index # CA1J	<b><u>PULSELESS V-FIB/TACH UNWITNESSED</u></b>	
<b>Measure</b>	<b><u>Lidocaine: Frequency of Administration</u></b>	
<b>CORE INDICATOR REF</b> #CA1	<b>CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from chest pain of suspected cardiac origin that receive Lidocaine in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Frequency, Compliance	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for pulseless V-Fib/Tach .	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for pulseless V-Fib/Tach -unwitnessed <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive Lidocaine in the Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient's who are treated in prehospital setting <input type="checkbox"/> patients who receive one or more doses of Lidocaine <input type="checkbox"/> Subset of denominator <input type="checkbox"/> time period for query match denominator	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> N / D = %	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>

	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> event witnessed by EMS personnel <input type="checkbox"/> event not treated by EMS personnel	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX # CA1K</b>	<b>PULSELESS V-FIB or V-TACH - UNWITNESSED</b>	
<b>Measure</b>	<b>Lidocaine: Desired Effect Achieved</b>	
<b>CORE INDICATOR REF #CA1</b>	<b>CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from pulseless V-Fib/Tach – unwitnessed; who achieve a desired therapeutic effect from the administration of Lidocaine in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for pulseless V-Fib/Tach - unwitnessed.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for pulseless V-Fib/V-Tach -witnessed <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive Lidocaine and a desired effect is achieved in the Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient's who are treated in prehospital setting <input type="checkbox"/> Received one or more doses of Lidocaine <input type="checkbox"/> Desired effect is any change in patient status where there is full or partial relief of symptoms <input type="checkbox"/> desired effect is reported by EMS personnel through observation, assessment or by verbal questioning of patient. <input type="checkbox"/> Subset of denominator	<input type="checkbox"/> EMSA#

	<input type="checkbox"/> Time period query match denominator	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> V-Fib/Tach with pulseless <input type="checkbox"/> event witnessed by EMS personnel <input type="checkbox"/> Lidocaine not administered by EMS personnel <input type="checkbox"/> desired effect from oxygen administration not reported. <input type="checkbox"/> event not treated by EMS personnel	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX #CA1L</b>	<b>PULSELESS V-FIB or V-TACH - UNWITNESSED</b>	
<b>Measure</b>	<b><u>Return of Spontaneous Circulation (ROSC)</u></b>	
<b>CORE INDICATOR REF #CA1</b>	<b>CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who have a return of spontaneous circulation (ROSC) after suffering a pulseless ventricular fibrillation (VF) or ventricular tachycardia (VT) event which is unwitnessed and treated by EMS personnel	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event unwitnessed by EMS personnel	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT) <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient VF & VT event was not witnessed by EMS personnel <input type="checkbox"/> specified time period	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52 <input type="checkbox"/> EMSA #11
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who have ROSC	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patients who survive to ROSC <input type="checkbox"/> ROSC is the return of spontaneous circulation by the patient as evidenced by a pulse at any site for any period of time after the initial absence of a pulse	<input type="checkbox"/> EMSA#

	<ul style="list-style-type: none"> <li><input type="checkbox"/> was determined by EMS personnel</li> <li><input type="checkbox"/> event occurred in Prehospital setting</li> <li><input type="checkbox"/> Subset of denominator</li> <li><input type="checkbox"/> Time period query match denominator</li> </ul>	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<ul style="list-style-type: none"> <li><input type="checkbox"/> name</li> <li><input type="checkbox"/> dob</li> <li><input type="checkbox"/> age</li> <li><input type="checkbox"/> gender</li> <li><input type="checkbox"/> admit date</li> <li><input type="checkbox"/> procedures</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> EMSA #29</li> <li><input type="checkbox"/> EMSA #35</li> <li><input type="checkbox"/> EMSA #36</li> <li><input type="checkbox"/> EMSA #38</li> <li><input type="checkbox"/> EMSA # ?</li> <li><input type="checkbox"/> EMSA #73</li> </ul>
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<ul style="list-style-type: none"> <li><input type="checkbox"/> by age</li> <li><input type="checkbox"/> by gender</li> <li><input type="checkbox"/> by incident type</li> <li><input type="checkbox"/> by response times</li> <li><input type="checkbox"/> by scene times</li> <li><input type="checkbox"/> by number of defibrillations</li> <li><input type="checkbox"/> by provider level</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> EMSA #36</li> <li><input type="checkbox"/> EMSA #38</li> <li><input type="checkbox"/> EMSA #8</li> <li><input type="checkbox"/> EMSA #17-20</li> <li><input type="checkbox"/> EMSA #8</li> <li><input type="checkbox"/> EMSA #73 (99.62)</li> <li><input type="checkbox"/> EMSA #25</li> </ul>
<b>Indicator Exclusion Criteria</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> non-cardiac etiologies,</li> <li><input type="checkbox"/> cardiac etiologies where resuscitation was not attempted by EMS personnel</li> <li><input type="checkbox"/> event witnessed by EMS personnel</li> <li><input type="checkbox"/> patient has not survived to hospital discharge</li> </ul>	
<b>References</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994</li> <li><input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989</li> <li><input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986.</li> <li><input type="checkbox"/> Ontario, Canada; Brison R.J. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX #CA1M</b>	<b>PULSELESS V-FIB or V-TACH - UNWITNESSED</b>	
<b>Measure</b>	<b><u>Admit to Emergency Department</u></b>	
<b>CORE INDICATOR REF #CA1</b>	<b>CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who survive to emergency department admission after suffering a pulseless ventricular fibrillation (VF) or ventricular tachycardia (VT) event which is unwitnessed and treated by EMS personnel	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event unwitnessed by EMS personnel	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient VF & VT event was not witnessed by EMS personnel <input type="checkbox"/> specified time period	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52 <input type="checkbox"/> EMSA #11
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital Admit Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who survive to ED Admission	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patients who survive to ED admit <input type="checkbox"/> Subset of Denominator <input type="checkbox"/> Time period query match denominator	<input type="checkbox"/> discharge status (TBD)
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical records <input type="checkbox"/> hospital discharge records <input type="checkbox"/> OSHPD discharge record	



<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by number of defibrillations <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (99.62) <input type="checkbox"/> EMSA #25
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where resuscitation was not attempted by EMS personnel <input type="checkbox"/> event witnessed by EMS personnel <input type="checkbox"/> patient has not survived to hospital discharge	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX #CA1N</b>	<b>PULSELESS V-FIB or V-TACH - UNWITNESSED</b>	
<b>Measure</b>	<u>Survival to Hospital Discharge</u>	
<b>CORE INDICATOR REF #CA1</b>	<b>CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who survive to hospital discharge after suffering a pulseless ventricular fibrillation (VF) or ventricular tachycardia (VT) event which is unwitnessed and treated by EMS personnel	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event not witnessed by EMS personnel	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT) <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient VF & VT event was not witnessed by EMS personnel <input type="checkbox"/> specified time period	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52 <input type="checkbox"/> EMSA #11
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who survive to hospital discharge	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patients who survive to hospital discharge <input type="checkbox"/> Subset of denominator <input type="checkbox"/> Time period query match denominator	<input type="checkbox"/> discharge status (TBD)
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Records <input type="checkbox"/> hospital discharge records <input type="checkbox"/> OSHPD discharge record	

<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by number of defibrillations <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (99.62) <input type="checkbox"/> EMSA #25
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where resuscitation was not attempted by EMS personnel <input type="checkbox"/> event witnessed by EMS personnel <input type="checkbox"/> patient has not survived to hospital discharge	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

CORE INDICATOR INDEX # CA2A	PULSELESS V-FIB or V-TACH - WITNESSED	
Measure	CPR Performed by Bystander	
Objective	<input type="checkbox"/> to measure % of patients who receive bystander CPR after suffering a pulseless ventricular fibrillation (VF) or ventricular tachycardia (VT) event which is witnessed and treated by EMS personnel	
Classification	<input type="checkbox"/> medical care - clinical	
Type of Measure	<input type="checkbox"/> Process	
Domain of Performance	<input type="checkbox"/> Patient Care	
Indicator Reporting Value	<input type="checkbox"/> %	
Display Format	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
Frequency of Display	<input type="checkbox"/> Monthly x 12	
Measures of Central Tendency	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
Trending Analysis	<input type="checkbox"/> NA	
Minimum Data Values	<input type="checkbox"/> 30 values per measure	
Sampling	<input type="checkbox"/> Periodic - Rate	
Aggregation	<input type="checkbox"/> Yes	
Blinded	<input type="checkbox"/> Yes	
Beta Testing	<input type="checkbox"/> None to Date	
Population Denominator (D)	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event witnessed by EMS personnel	
Denominator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT) <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient VF & VT event was witnessed by EMS personnel <input type="checkbox"/> specified time period	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52 <input type="checkbox"/> EMSA #11
Denominator Data Source	<input type="checkbox"/> EMS Medical Records	
Population Subset Numerator (N)	<input type="checkbox"/> the number of patients who receive bystander CPR in Prehospital setting	
Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> bystander CPR is performed by individuals (professional or non-professional) who are on scene prior to arrival of on-duty EMS personnel <input type="checkbox"/> Subset of denominator	<input type="checkbox"/> discharge status (TBD)
Numerator Data Source	<input type="checkbox"/> hospital discharge records <input type="checkbox"/> OSHPD discharge record	

<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by number of defibrillations <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (99.62) <input type="checkbox"/> EMSA #25
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where resuscitation was not attempted by EMS personnel <input type="checkbox"/> event not witnessed by EMS personnel <input type="checkbox"/> Bystander CPR not performed	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX # CA2B</b>	<b>PULSELESS V-FIB or V-TACH - WITNESSED</b>	
<b>Measure</b>	<u>Defibrillation Performed by Bystander</u> <b>Public Access Defibrillation (PAD)</b>	
<b>CORE INDICATOR REF #CA2</b>	<b>CARDIAC - ADULT</b> TREATMENT PROTOCOL UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who have defibrillation performed by lay public after suffering a pulseless ventricular fibrillation (VF) or ventricular tachycardia (VT) event which is witnessed and treated by EMS personnel	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event witnessed by EMS personnel	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT event was in prehospital setting <input type="checkbox"/> patient VF & VT event was witnessed by EMS personnel <input type="checkbox"/> specified time period	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52  <input type="checkbox"/> EMSA #11
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive defibrillation performed by lay person	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> defibrillation performed by lay public (professional or non-professional) prior to arrival of on-duty EMS personnel	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	

<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> N / D = %	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where resuscitation was not attempted by EMS personnel <input type="checkbox"/> event not witnessed by EMS personnel <input type="checkbox"/> Defib performed on-duty EMS personnel <input type="checkbox"/> patient has not survived to hospital discharge	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX # CA2C</b>	<b>PULSELESS V-FIB or V-TACH - WITNESSED</b>	
<b>Measure</b>	<b>Automatic External Defibrillation (AED) Performed by EMS Personnel</b>	
<b>CORE INDICATOR REF #CA2</b>	<b>CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who receive defibrillation by automatic or semi-automatic external defibrillator and performed by on-duty EMS personnel on pulseless V-Fib/Tach witnessed	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Patient Care	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event witnessed by EMS personnel	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT event was in prehospital setting <input type="checkbox"/> patient VF & VT event was witnessed by EMS personnel <input type="checkbox"/> specified time period	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52 <input type="checkbox"/> EMSA #11
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> defibrillation by automatic or semi-automatic external defibrillator and performed by on-duty EMS personnel	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patients who survive to hospital discharge	<input type="checkbox"/> discharge status (TBD)
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical records <input type="checkbox"/>	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	



Linkage	Linkage Options	EMSA Data Elements
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
Stratification	Options	EMSA Data Elements
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73
Indicator Exclusion Criteria	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where resuscitation was not attempted by EMS personnel <input type="checkbox"/> use of manual defibrillator <input type="checkbox"/> defib performed by lay public or on-duty medical professional <input type="checkbox"/> event not witnessed by EMS personnel <input type="checkbox"/> patient has not survived to hospital discharge	
References	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
Source	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX # CA2D</b>	<b>PULSELESS V-FIB or V-TACH - WITNESSED</b>	
<b>Measure</b>	<b><u>Lapse of Time to First Shock 10 mins or less</u></b>	
<b>CORE INDICATOR REF #CA2</b>	<b>CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who receive defibrillation in 10 minutes or less from the estimated time of onset for a witnessed pulseless V-Fib/Tach event	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> process	
<b>Domain of Performance</b>	<input type="checkbox"/> Patient Care	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event witnessed by EMS personnel	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient VF & VT event was witnessed by EMS personnel <input type="checkbox"/> specified time period	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52 <input type="checkbox"/> EMSA #11
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive shock within 10 mins or less from estimated time of onset for pulseless V-Fib/Tach event.	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patients who receive first defibrillatory shock within 10 mins or less <input type="checkbox"/> estimated time of onset is dependent upon the best subjective assessment or evidence as witnessed by EMS personnel on scene.	<input type="checkbox"/> EMSA#

<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where resuscitation was not attempted by EMS personnel <input type="checkbox"/> Time to shock greater than 10 mins <input type="checkbox"/> event not witnessed by EMS personnel <input type="checkbox"/> patient has not survived to hospital discharge	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # CA2E</b>	<b><u>PULSELESS V-FIB/TACH WITNESSED</u></b>	
<b>Measure</b>	<b><u>Prehospital Defibrillation: Frequency of Administration</u></b>	
<b>CORE INDICATOR REF</b> <b>#CA2</b>	<b>CARDIAC - ADULT</b> <b>TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering a pulseless ventricular fibrillation (VF) or ventricular tachycardia (VT) event, which is, witnessed who receive one or more defibrillatory shocks in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Frequency, Compliance	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for pulseless V-Fib/Tach witnessed	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for pulseless V-Fib/Tach. <input type="checkbox"/> Event is witnessed by EMS personnel <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive one or more defibrillatory shocks in the Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patients who receive shock from any type of defib unit <input type="checkbox"/> patient who receive shock from any provider; lay or professional <input type="checkbox"/> patient's who are treated in prehospital setting	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	

Linkage	Linkage Options	EMSA Data Elements
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
Stratification	Options	EMSA Data Elements
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
Indicator Exclusion Criteria	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where pulseless V-Fib/V-Tach not present <input type="checkbox"/> event was not witnessed by EMS personnel <input type="checkbox"/> event not treated by EMS personnel	
References	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison R.J. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
Source	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX # CA2F</b>	<b>PULSELESS V-FIB or V-TACH - WITNESSED</b>	
<b>Measure</b>	<b><u>Prehospital Defibrillation: Number of Shocks Delivered per Patient</u></b>	
<b>CORE INDICATOR REF #CA1</b>	CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure the average number of shocks delivered per patient after suffering a pulseless ventricular fibrillation (VF) or ventricular tachycardia (VT) event which is witnessed and treated by EMS personnel	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Pt Care	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event witnessed by EMS personnel	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient VF & VT event was witnessed by EMS personnel <input type="checkbox"/> specified time period	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54  <input type="checkbox"/> EMSA #52  <input type="checkbox"/> EMSA #11
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of shock delivered.	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Shocks delivered by a any type of defib unit <input type="checkbox"/> shocks delivered by any person (professional or non-professional)	<input type="checkbox"/> EMSA#

	<input type="checkbox"/> event witnessed by EMS personnel <input type="checkbox"/> subset of denominator <input type="checkbox"/> same time period as denominator	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where resuscitation was not attempted by EMS personnel <input type="checkbox"/> event not witnessed by EMS personnel <input type="checkbox"/> patient has not survived to hospital discharge	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX # CA2G</b>	<b>PULSELESS V-FIB or V-TACH - WITNESSED</b>	
<b>Measure</b>	<b><u>Prehospital Defibrillation: Desired Effect Achieved</u></b>	
<b>CORE INDICATOR REF #CA1</b>	<b>CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who achieve a desired therapeutic effect from one or more defibrillation shocks for pulseless V-Fib/Tach – witnessed in the Prehospital setting	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event witnessed and are shocked by EMS personnel	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT event was in prehospital setting <input type="checkbox"/> patient VF & VT event was witnessed by EMS personnel <input type="checkbox"/> pt was shocked by any type of defib unit <input type="checkbox"/> patient was shocked one or more times <input type="checkbox"/> specified time period	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52 <input type="checkbox"/> EMSA #11
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients where a desired effect is achieved from one or more shocks	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient's who are treated in prehospital setting <input type="checkbox"/> Desired effect is any change in patient status where there is full or partial relief of symptoms	<input type="checkbox"/> discharge status (TBD)



	<input type="checkbox"/> desired effect is reported by EMS personnel through observation, assessment or by verbal questioning of patient.	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by number of defibrillations <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (99.62) <input type="checkbox"/> EMSA #25
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where defib was not attempted by EMS personnel <input type="checkbox"/> events where desired effect not achieved <input type="checkbox"/> event not witnessed by EMS personnel <input type="checkbox"/> patient has not survived to hospital discharge	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison R.J. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR Index # CA2H</b>	<b><u>PULSELESS V-FIB/TACH WITNESSED</u></b>	
<b>Measure</b>	<b><u>Epinephrine: Frequency of Administration</u></b>	
<b>CORE INDICATOR REF #CA1</b>	<b>CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from pulseless V-Fib/Tach-witnessed who receive epinephrine in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Frequency, Compliance	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients who suffer a pulseless V-Fib/Tach event - witnessed in Prehospital setting	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for pulseless V-Fib/Tach. <input type="checkbox"/> event was witnessed by EMS personnel in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive epinephrine	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient's who are treated in prehospital setting <input type="checkbox"/> patients who receive one or more doses of epinephrine <input type="checkbox"/> subset of denominator	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name	<input type="checkbox"/> EMSA #

	<input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where patient not resuscitated by EMS personnel <input type="checkbox"/> event not witnessed by EMS personnel <input type="checkbox"/> event not treated by EMS personnel	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison R.J. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX # CA2I</b>	<b>PULSELESS V-FIB or V-TACH - WITNESSED</b>	
<b>Measure</b>	<b>Epinephrine: Desired Effect Achieved</b>	
<b>CORE INDICATOR REF #CA1</b>	<b>CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from pulseless V-Fib/Tach – witnessed - who achieve a desired therapeutic effect from the administration of epinephrine in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for pulseless V-Fib/Tach - witnessed	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for pulseless V-Fib/Tach -witnessed. <input type="checkbox"/> patients who receive epinephrine any modality or device. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive epinephrine where a desired effect is achieved in the Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient's who are treated in prehospital setting <input type="checkbox"/> Desired effect is any change in patient status where there is full or partial relief of symptoms <input type="checkbox"/> desired effect is reported by EMS personnel through observation, assessment or by verbal questioning of patient. <input type="checkbox"/> subset of denominator	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	

<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where cardiac chest pain was not chief compliant <input type="checkbox"/> event not witnessed by EMS personnel <input type="checkbox"/> epinephrine not administered <input type="checkbox"/> desired effect from epinephrine administration not reported. <input type="checkbox"/> event not treated by EMS personnel	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> Index # CA2J	<b><u>PULSELESS V-FIB/TACH UNWITNESSED</u></b>	
<b>Measure</b>	<b><u>Lidocaine: Frequency of Administration</u></b>	
<b>CORE INDICATOR REF</b> #CA1	<b>CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from pulseless V-Fib/Tach – witnessed who receive Lidocaine in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Frequency, Compliance	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for pulseless V-Fib/Tach - witnessed.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for pulseless V-Fib/Tach -witnessed <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive Lidocaine in the Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient's who are treated in prehospital setting <input type="checkbox"/> patients who receive one or more doses of Lidocaine <input type="checkbox"/> Subset of denominator <input type="checkbox"/> time period for query match denominator	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name	<input type="checkbox"/> EMSA #

	<input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> event not witnessed by EMS personnel <input type="checkbox"/> event not treated by EMS personnel	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX # CA2K</b>	<b>PULSELESS V-FIB or V-TACH - WITNESSED</b>	
<b>Measure</b>	<b>Lidocaine: Desired Effect Achieved</b>	
<b>CORE INDICATOR REF #CA1</b>	<b>CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from pulseless V-Fib/Tach – witnessed; who achieve a desired therapeutic effect from the administration of Lidocaine in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for pulseless V-Fib/Tach - witnessed.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for pulseless V-Fib/V-Tach -witnessed <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive Lidocaine and a desired effect is achieved in the Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient's who are treated in prehospital setting <input type="checkbox"/> event witnessed by EMS personnel <input type="checkbox"/> Received one or more doses of Lidocaine <input type="checkbox"/> Desired effect is any change in patient status where there is full or partial relief of symptoms <input type="checkbox"/> desired effect is reported by EMS personnel through observation, assessment or by verbal questioning of	<input type="checkbox"/> EMSA#



	<ul style="list-style-type: none"> <li>patient.</li> <li><input type="checkbox"/> Subset of denominator</li> <li><input type="checkbox"/> Time period query match denominator</li> </ul>	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<ul style="list-style-type: none"> <li><input type="checkbox"/> name</li> <li><input type="checkbox"/> dob</li> <li><input type="checkbox"/> age</li> <li><input type="checkbox"/> gender</li> <li><input type="checkbox"/> admit date</li> <li><input type="checkbox"/> procedures</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> EMSA #</li> <li><input type="checkbox"/> EMSA #</li> <li><input type="checkbox"/> EMSA #</li> <li><input type="checkbox"/> EMSA #</li> <li><input type="checkbox"/> EMSA #</li> <li><input type="checkbox"/> EMSA #</li> </ul>
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<ul style="list-style-type: none"> <li><input type="checkbox"/> by age</li> <li><input type="checkbox"/> by gender</li> <li><input type="checkbox"/> by incident type</li> <li><input type="checkbox"/> by response times</li> <li><input type="checkbox"/> by scene times</li> <li><input type="checkbox"/> by provider level</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> EMSA #</li> <li><input type="checkbox"/> EMSA #</li> <li><input type="checkbox"/> EMSA #</li> <li><input type="checkbox"/> EMSA #</li> <li><input type="checkbox"/> EMSA #</li> <li><input type="checkbox"/> EMSA #</li> <li><input type="checkbox"/> EMSA #</li> </ul>
<b>Indicator Exclusion Criteria</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> non-cardiac etiologies,</li> <li><input type="checkbox"/> V-Fib/Tach with pulseless</li> <li><input type="checkbox"/> event not witnessed by EMS personnel</li> <li><input type="checkbox"/> Lidocaine not administered by EMS personnel</li> <li><input type="checkbox"/> desired effect from oxygen administration not reported.</li> <li><input type="checkbox"/> event not treated by EMS personnel</li> </ul>	
<b>References</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994</li> <li><input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989</li> <li><input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986.</li> <li><input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX #CA2L</b>	<b>PULSELESS V-FIB or V-TACH - WITNESSED</b>	
<b>Measure</b>	<b><u>Return of Spontaneous Circulation (ROSC)</u></b>	
<b>CORE INDICATOR REF #CA1</b>	<b>CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who have a return of spontaneous circulation (ROSC) after suffering a pulseless ventricular fibrillation (VF) or ventricular tachycardia (VT) event which is witnessed and treated by EMS personnel	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event witnessed by EMS personnel	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient VF & VT event was witnessed by EMS personnel <input type="checkbox"/> specified time period	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54  <input type="checkbox"/> EMSA #52  <input type="checkbox"/> EMSA #11
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who have ROSC	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patients who survive to ROSC <input type="checkbox"/> ROSC is the return of spontaneous circulation by the patient as evidenced by a pulse at any site for any period of time after the	<input type="checkbox"/> EMSA#

	<ul style="list-style-type: none"> <li>initial absence of a pulse was determined by EMS personnel</li> <li><input type="checkbox"/> event occurred in Prehospital setting</li> <li><input type="checkbox"/> Subset of denominator</li> <li><input type="checkbox"/> Time period query match denominator</li> </ul>	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<ul style="list-style-type: none"> <li><input type="checkbox"/> name</li> <li><input type="checkbox"/> dob</li> <li><input type="checkbox"/> age</li> <li><input type="checkbox"/> gender</li> <li><input type="checkbox"/> admit date</li> <li><input type="checkbox"/> procedures</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> EMSA #29</li> <li><input type="checkbox"/> EMSA #35</li> <li><input type="checkbox"/> EMSA #36</li> <li><input type="checkbox"/> EMSA #38</li> <li><input type="checkbox"/> EMSA # ?</li> <li><input type="checkbox"/> EMSA #73</li> </ul>
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<ul style="list-style-type: none"> <li><input type="checkbox"/> by age</li> <li><input type="checkbox"/> by gender</li> <li><input type="checkbox"/> by incident type</li> <li><input type="checkbox"/> by response times</li> <li><input type="checkbox"/> by scene times</li> <li><input type="checkbox"/> by number of defibrillations</li> <li><input type="checkbox"/> by provider level</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> EMSA #36</li> <li><input type="checkbox"/> EMSA #38</li> <li><input type="checkbox"/> EMSA #8</li> <li><input type="checkbox"/> EMSA #17-20</li> <li><input type="checkbox"/> EMSA #8</li> <li><input type="checkbox"/> EMSA #73 (99.62)</li> <li><input type="checkbox"/> EMSA #25</li> </ul>
<b>Indicator Exclusion Criteria</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> non-cardiac etiologies,</li> <li><input type="checkbox"/> cardiac etiologies where resuscitation was not attempted by EMS personnel</li> <li><input type="checkbox"/> event not witnessed by EMS personnel</li> <li><input type="checkbox"/> patient has not survived to hospital discharge</li> </ul>	
<b>References</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994</li> <li><input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989</li> <li><input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986.</li> <li><input type="checkbox"/> Ontario, Canada; Brison R.J. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX #CA2</b>	<b>PULSELESS V-FIB or V-TACH - WITNESSED</b>	
<b>Measure</b>	<b><u>Admit to Emergency Department</u></b>	
<b>CORE INDICATOR REF #CA1</b>	<b>CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who survive to emergency department admission after suffering a pulseless ventricular fibrillation (VF) or ventricular tachycardia (VT) event which is witnessed and treated by EMS personnel	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event witnessed by EMS personnel	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient VF & VT event was witnessed by EMS personnel <input type="checkbox"/> specified time period	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54  <input type="checkbox"/> EMSA #52  <input type="checkbox"/> EMSA #11
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital Admit Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who survive to ED Admission	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patients who survive to ED admit <input type="checkbox"/> Subset of Denominator <input type="checkbox"/> Time period query match denominator	<input type="checkbox"/> discharge status (TBD)
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical records <input type="checkbox"/> hospital discharge records <input type="checkbox"/> OSHPD discharge record	

<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by number of defibrillations <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (99.62) <input type="checkbox"/> EMSA #25
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where resuscitation was not attempted by EMS personnel <input type="checkbox"/> event not witnessed by EMS personnel <input type="checkbox"/> patient has not survived to hospital discharge	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX #CA2N</b>	<b>PULSELESS V-FIB or V-TACH - WITNESSED</b>	
<b>Measure</b>	<u>Survival to Hospital Discharge</u>	
<b>CORE INDICATOR REF #CA1</b>	<b>CARDIAC - ADULT TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who survive to hospital discharge after suffering a pulseless ventricular fibrillation (VF) or ventricular tachycardia (VT) event which is witnessed and treated by EMS personnel	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event witnessed by EMS personnel	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT event was in prehospital setting <input type="checkbox"/> patient VF & VT event was not witnessed by EMS personnel <input type="checkbox"/> specified time period	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52 <input type="checkbox"/> EMSA #11
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who survive to hospital discharge	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patients who survive to hospital discharge <input type="checkbox"/> Subset of denominator <input type="checkbox"/> Time period query match denominator	<input type="checkbox"/> discharge status (TBD)
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Records <input type="checkbox"/> hospital discharge records <input type="checkbox"/> OSHPD discharge record	
<b>Description of Indicator</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied	

<b>Formula</b>	by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by number of defibrillations <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (99.62) <input type="checkbox"/> EMSA #25
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where resuscitation was not attempted by EMS personnel <input type="checkbox"/> event not witnessed by EMS personnel <input type="checkbox"/> patient has not survived to hospital discharge	
<b>References</b>	<input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Wisconsin study; Olson DW, MD. EMT-Defibrillation: The Wisconsin Experience;. Ann of Emerg Med, 18:8;806. 1989 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986. <input type="checkbox"/> Ontario, Canada; Brison RJ. Cardiac Arrest in Ontario; Can Med Assoc J; 191-199, 1992	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # CA3A</b>	<b>CHEST PAIN-SUSPECTED CARDIAC ORIGIN</b>	
<b>Measure</b>	<b>Oxygen: Frequency of Administration</b>	
<b>CORE INDICATOR REF</b> <b>#CA1</b>	<b>CARDIAC - ADULT</b> <b>TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from chest pain of suspected cardiac origin that receive oxygen in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Frequency, Compliance	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for chest pain of suspected cardiac origin.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for chest pain of suspected cardiac origin. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset</b> <b>Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive oxygen in the Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient's who are treated in prehospital setting	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #



Stratification	Options	EMSA Data Elements
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
Indicator Exclusion Criteria	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where cardiac chest pain was not chief compliant <input type="checkbox"/> event not treated by EMS personnel	
References	<input type="checkbox"/> Abrams J: Nitroglycerine and long-acting nitrates in clinical practice. Am J Med 1983;74 (no6B):85 <input type="checkbox"/> American Heart Assn. Textbook on Advanced Cardiac Life Support, 3 <sup>rd</sup> Ed. Dallas: AHA 1993 <input type="checkbox"/> Gunnar RM: Management of Acute Myocardial Infarction. Prog Cardiovascular Disease 1979;22:1 <input type="checkbox"/> Rackley CE: Modern Approaches to Myocardial Infarction. Am Heart J. 1981;22:107 <input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994	
Source	<input type="checkbox"/> California EMSA Vision Project	
<b>CORE INDICATOR</b> <b>Index # CA3B</b>	<b><u>CHEST PAIN-SUSPECTED CARDIAC ORIGIN</u></b>	
<b>Measure</b>	<b><u>Oxygen: Desired Effect Achieved</u></b>	
<b>CORE INDICATOR REF</b> <b>#CA1</b>	<b>CARDIAC - ADULT</b> <b>TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from chest pain of suspected cardiac origin that achieve a desired therapeutic effect from the administration of oxygen in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for chest pain of suspected cardiac origin that receive oxygen as part of their treatment.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>

	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for chest pain of suspected cardiac origin. <input type="checkbox"/> patients who receive oxygen by any modality or device. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive oxygen where a desired effect is achieved in the Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient's who are treated in prehospital setting <input type="checkbox"/> Desired effect is any change in patient status where there is full or partial relief of symptoms <input type="checkbox"/> desired effect is reported by EMS personnel through observation, assessment or by verbal questioning of patient.	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where cardiac chest pain was not chief complaint <input type="checkbox"/> oxygen not administered <input type="checkbox"/> desired effect from oxygen administration not reported. <input type="checkbox"/> event not treated by EMS personnel	
<b>References</b>	<input type="checkbox"/> Abrams J: Nitroglycerine and long-acting nitrates in clinical practice. Am J Med 1983;74 (no6B):85 <input type="checkbox"/> American Heart Assn. Textbook on Advanced Cardiac Life Support, 3 <sup>rd</sup> Ed. Dallas: AHA 1993 <input type="checkbox"/> Gunnar RM: Management of Acute Myocardial Infarction. Prog Cardiovascular Disease 1979;22:1 <input type="checkbox"/> Rackley CE: Modern Approaches to Myocardial Infarction. Am Heart J. 1981;22:107	

	Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project

<b>CORE INDICATOR</b> <b>Index # CA3C</b>	<b>CHEST PAIN-SUSPECTED CARDIAC ORIGIN</b>	
<b>Measure</b>	<b>Nitroglycerine (NTG): Frequency of Administration</b>	
<b>CORE INDICATOR REF</b> <b>#CA1</b>	<b>CARDIAC - ADULT</b> <b>TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from chest pain of suspected cardiac origin that receive nitroglycerine in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Frequency, Compliance	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for chest pain of suspected cardiac origin.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for chest pain of suspected cardiac origin. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/>	
<b>Population Subset</b> <b>Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive nitroglycerine in the Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patients who are treated in prehospital setting	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula</b> <b>Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #

Stratification	Options	EMSA Data Elements
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
Indicator Exclusion Criteria	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where cardiac chest pain was not chief compliant <input type="checkbox"/> event not treated by EMS personnel	
References	<input type="checkbox"/> Abrams J: Nitroglycerine and long-acting nitrates in clinical practice. Am J Med 1983;74 (no6B):85 <input type="checkbox"/> American Heart Assn. Textbook on Advanced Cardiac Life Support, 3 <sup>rd</sup> Ed. Dallas: AHA 1993 <input type="checkbox"/> Gunnar RM: Management of Acute Myocardial Infarction. Prog Cardiovascular Disease 1979;22:1 <input type="checkbox"/> Rackley CE: Modern Approaches to Myocardial Infarction. Am Heart J. 1981;22:107 Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994	
Source	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> Index # CA3D	<b>CHEST PAIN-SUSPECTED CARDIAC ORIGIN</b>	
<b>Measure</b>	<b>Nitroglycerine: Desired Effect Achieved</b>	
<b>CORE INDICATOR REF</b> #CA1	<b>CARDIAC - ADULT</b> TREATMENT PROTOCOL UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from chest pain of suspected cardiac origin that achieve a desired therapeutic effect from the administration of nitroglycerine in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for chest pain of suspected cardiac origin that receive nitroglycerine as part of their treatment.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for chest pain of suspected cardiac origin. <input type="checkbox"/> patients who receive nitroglycerine by any modality or device. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset</b> <b>Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive nitroglycerine where a desired effect is achieved in the Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient's who are treated in prehospital setting <input type="checkbox"/> Desired effect is any change in patient status where there is full or partial relief of symptoms <input type="checkbox"/> desired effect is reported by EMS personnel through observation, assessment or by verbal questioning of patient.	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	

<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where cardiac chest pain was not chief complaint <input type="checkbox"/> oxygen not administered <input type="checkbox"/> desired effect from nitroglycerine administration not reported. <input type="checkbox"/> event not treated by EMS personnel	
<b>References</b>	<input type="checkbox"/> Abrams J: Nitroglycerine and long-acting nitrates in clinical practice. Am J Med 1983;74 (no6B):85 <input type="checkbox"/> American Heart Assn. Textbook on Advanced Cardiac Life Support, 3 <sup>rd</sup> Ed. Dallas: AHA 1993 <input type="checkbox"/> Gunnar RM: Management of Acute Myocardial Infarction. Prog Cardiovascular Disease 1979;22:1 <input type="checkbox"/> Rackley CE: Modern Approaches to Myocardial Infarction. Am Heart J. 1981;22:107 Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # CA3E</b>	<b>CHEST PAIN-SUSPECTED CARDIAC ORIGIN</b>	
<b>Measure</b>	<b>Morphine Sulfate (MS): Frequency of Administration</b>	
<b>CORE INDICATOR REF</b> <b>#CA1</b>	<b>CARDIAC - ADULT</b> <b>TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from chest pain of suspected cardiac origin that receive morphine sulfate in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Frequency, Compliance	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for chest pain of suspected cardiac origin.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for chest pain of suspected cardiac origin. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset</b> <b>Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive morphine sulfate in the Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patients who are treated in prehospital setting	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator</b> <b>Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula</b> <b>Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #



	<input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where cardiac chest pain was not chief compliant <input type="checkbox"/> event not treated by EMS personnel	
<b>References</b>	<input type="checkbox"/> Abrams J: Nitroglycerine and long-acting nitrates in clinical practice. Am J Med 1983;74 (no6B):85 <input type="checkbox"/> American Heart Assn. Textbook on Advanced Cardiac Life Support, 3 <sup>rd</sup> Ed. Dallas: AHA 1993 <input type="checkbox"/> Gunnar RM: Management of Acute Myocardial Infarction. Prog Cardiovascular Disease 1979;22:1 <input type="checkbox"/> Rackley CE: Modern Approaches to Myocardial Infarction. Am Heart J. 1981;22:107 Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	
<b>CORE INDICATOR Index # CA3E</b>	<b>CHEST PAIN-SUSPECTED CARDIAC ORIGIN</b>	
<b>Measure</b>	<b>Morphine Sulfate: Desired Effect Achieved</b>	
<b>CORE INDICATOR REF #CA1</b>	<b>CARDIAC - ADULT TREATMENT PROTOCOL UTIL</b>	<b>ZATION</b>
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from chest pain of suspected cardiac origin that achieve a desired therapeutic effect from the administration of morphine in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for chest pain of suspected cardiac origin that receive morphine as part of	

	their treatment.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for chest pain of suspected cardiac origin. <input type="checkbox"/> patients who receive morphine by any modality or device. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive morphine where a desired effect is achieved in the Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient's who are treated in prehospital setting <input type="checkbox"/> Desired effect is any change in patient status where there is full or partial relief of symptoms <input type="checkbox"/> desired effect is reported by EMS personnel through observation, assessment or by verbal questioning of patient.	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where cardiac chest pain was not chief complaint <input type="checkbox"/> oxygen not administered <input type="checkbox"/> desired effect from morphine administration not reported. <input type="checkbox"/> event not treated by EMS personnel	
<b>References</b>	<input type="checkbox"/> Abrams J: Nitroglycerine and long-acting nitrates in clinical practice. Am J Med 1983;74 (no6B):85 <input type="checkbox"/> American Heart Assn. Textbook on Advanced Cardiac Life Support, 3 <sup>rd</sup> Ed. Dallas: AHA 1993 <input type="checkbox"/> Gunnar RM: Management of Acute Myocardial Infarction. Prog	

	<p>Cardiovascular Disease 1979;22:1</p> <p>❑ Rackley CE: Modern Approaches to Myocardial Infarction. Am Heart J. 1981;22:107</p> <p>Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994</p>
<b>Source</b>	<p>❑ California EMSA Vision Project</p>

<b>CORE INDICATOR</b> <b>Index # CA3G</b>	<b>CHEST PAIN-SUSPECTED CARDIAC ORIGIN</b>	
<b>Measure</b>	<b>Aspirin (ASA): Frequency of Administration</b>	
<b>CORE INDICATOR REF</b> <b>#CA1</b>	<b>CARDIAC - ADULT</b> <b>TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from chest pain of suspected cardiac origin that receive aspirin in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Frequency, Compliance	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for chest pain of suspected cardiac origin.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for chest pain of suspected cardiac origin. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset</b> <b>Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive aspirin in the Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patients who are treated in prehospital setting	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula</b> <b>Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #

	<input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where cardiac chest pain was not chief compliant <input type="checkbox"/> event not treated by EMS personnel	
<b>References</b>	<input type="checkbox"/> Abrams J: Nitroglycerine and long-acting nitrates in clinical practice. Am J Med 1983;74 (no6B):85 <input type="checkbox"/> American Heart Assn. Textbook on Advanced Cardiac Life Support, 3 <sup>rd</sup> Ed. Dallas: AHA 1993 <input type="checkbox"/> Gunnar RM: Management of Acute Myocardial Infarction. Prog Cardiovascular Disease 1979;22: 1 <input type="checkbox"/> Rackley CE: Modern Approaches to Myocardial Infarction. Am Heart J. 1981;22:107 Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR Index # CA3H</b>	<b>CHEST PAIN-SUSPECTED CARDIAC ORIGIN</b>	
<b>Measure</b>	<b><u>Lapse Time - On Scene</u></b>	
<b>Objective</b>	<input type="checkbox"/> to measure average time on-scene for EMS response units treating a patient with chest pain of suspected cardiac origin.	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> Ave time on scene in Minutes + Seconds	
<b>Display Format</b>	<input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> Yes	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> Number of EMS calls where patient was treated for chest pain of suspected cardiac origin	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has treated by EMS personnel for chest pain of suspected cardiac origin <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	<input type="checkbox"/> PSAP Record <input type="checkbox"/> Dispatch Agency Records <input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> lapse time is the time when a EMS Response Unit arrives on scene (wheel stop) to the time when unit begins transport (wheel start); The total number when all lapse times are added together for all patients identified in denominator = N	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has treated by EMS personnel for chest pain of suspected cardiac origin <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> Lapsed times where time arrival on scene and begin transport is recorded. <input type="checkbox"/> Specified query time period is the same as Denominator (D)	<input type="checkbox"/>
<b>Numerator Data Source</b>	<input type="checkbox"/> PSAP Record <input type="checkbox"/> Dispatch Agency Records <input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) = average	

<b>Formula</b>	time on scene.	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> N / D = Ave Time On Scene	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Age <input type="checkbox"/> Vitals	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene location <input type="checkbox"/> by response unit <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Non-cardiac etiologies, <input type="checkbox"/> Cardiac etiologies where patient not treated by EMS personnel <input type="checkbox"/> Cardiac etiologies where patient not transported	
<b>References</b>	<input type="checkbox"/> Abrams J: Nitroglycerine and long-acting nitrates in clinical practice. Am J Med 1983;74 (no6B):85 <input type="checkbox"/> American Heart Assn. Textbook on Advanced Cardiac Life Support, 3 <sup>rd</sup> Ed. Dallas: AHA 1993 <input type="checkbox"/> Gunnar RM: Management of Acute Myocardial Infarction. Prog Cardiovascular Disease 1979;22:1 <input type="checkbox"/> Rackley CE: Modern Approaches to Myocardial Infarction. Am Heart J. 1981;22:107 Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # CA3I</b>	<b>CHEST PAIN-SUSPECTED CARDIAC ORIGIN</b>	
<b>Measure</b>	<b>Decrease/Relief of Symptoms</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients with a reported decrease or relief of symptoms when treated by EMS personnel for chest pain of suspected cardiac origin	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> Number of EMS calls where patient was treated for chest pain of suspected cardiac origin	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has treated by EMS personnel for chest pain of suspected cardiac origin <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients with reported decrease or full relief of symptoms after treatment by EMS personnel in Prehospital setting.	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has treated by EMS personnel for chest pain of suspected cardiac origin <input type="checkbox"/> reported that patient had decrease or full relief of symptoms <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period same as denominator	<input type="checkbox"/> <b>EMSA#</b>
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	



Linkage	Linkage Options	EMSA Data Elements
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> time	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
Stratification	Options	EMSA Data Elements
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by medication admin <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (99.62)
Indicator Exclusion Criteria	<input type="checkbox"/> chest pain of non-cardiac etiologies <input type="checkbox"/> chest pain not treated in prehospital setting <input type="checkbox"/> Chest pain where patient refuse service	
References	<input type="checkbox"/> Abrams J: Nitroglycerine and long-acting nitrates in clinical practice. Am J Med 1983;74 (no6B):85 <input type="checkbox"/> American Heart Assn. Textbook on Advanced Cardiac Life Support, 3 <sup>rd</sup> Ed. Dallas: AHA 1993 <input type="checkbox"/> Gunnar RM: Management of Acute Myocardial Infarction. Prog Cardiovascular Disease 1979;22:1 <input type="checkbox"/> Rackley CE: Modern Approaches to Myocardial Infarction. Am Heart J. 1981;22:107 Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994	
Source	<input type="checkbox"/> California EMSA Vision Project	

CORE INDICATOR Index # CA3J	CHEST PAIN-SUSPECTED CARDIAC ORIGIN	
Measure	Survival to Hospital Discharge	
Objective	<input type="checkbox"/> to measure % of patients who survive to hospital discharge after suffering an episode where they experience chest pain of suspected cardiac origin and are treated by EMS personnel in Prehospital setting.	
Classification	<input type="checkbox"/> medical care - clinical	
Type of Measure	<input type="checkbox"/> outcome	
Domain of Performance	<input type="checkbox"/> Effectiveness	
Indicator Reporting Value	<input type="checkbox"/> %	
Display Format	<input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
Frequency of Display	<input type="checkbox"/> Monthly x 12	
Measures of Central Tendency	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
Trending Analysis	<input type="checkbox"/> NA	
Minimum Data Values	<input type="checkbox"/> 30 values per measure	
Sampling	<input type="checkbox"/> Periodic - Rate	
Aggregation	<input type="checkbox"/> Yes	
Blinded	<input type="checkbox"/> Yes	
Beta Testing	<input type="checkbox"/> None to Date	
Population Denominator (D)	<input type="checkbox"/> the number of adult patients who suffer chest pain of suspected cardiac origin and treated by EMS personnel in Prehospital setting.	
Denominator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered chest pain of suspected cardiac origin <input type="checkbox"/> patient was treated by EMS personnel <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52
Denominator Data Source	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital Discharge Records <input type="checkbox"/> OSHPD Records	
Population Subset Numerator (N)	<input type="checkbox"/> the number of patients who survive to hospital discharge	
Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patients who survive to hospital discharge	<input type="checkbox"/> discharge status (TBD)
Numerator Data Source	<input type="checkbox"/> hospital discharge records <input type="checkbox"/> OSHPD discharge record	
Description of Indicator Formula	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
Indicator Formula Numeric Expression	<input type="checkbox"/> $N / D = \%$	
Linkage	Linkage Options	EMSA Data Elements
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ?

	<input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by number of defibrillations <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (99.62) <input type="checkbox"/> EMSA #25
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Chest pain of non-cardiac etiologies, <input type="checkbox"/> Chest pain of cardiac etiologies where treatment not attempted by EMS personnel <input type="checkbox"/> patient has not survived to hospital discharge	
<b>References</b>	<input type="checkbox"/> Abrams J: Nitroglycerine and long-acting nitrates in clinical practice. Am J Med 1983;74 (no6B):85 <input type="checkbox"/> American Heart Assn. Textbook on Advanced Cardiac Life Support, 3 <sup>rd</sup> Ed. Dallas: AHA 1993 <input type="checkbox"/> Gunnar RM: Management of Acute Myocardial Infarction. Prog Cardiovascular Disease 1979;22:1 <input type="checkbox"/> Rackley CE: Modern Approaches to Myocardial Infarction. Am Heart J. 1981;22:107 Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX # ED1A</b>	<b>EMS EDUCATION &amp; TRAINING</b>	
<b>Measure</b>	<b>Graduates per year: EMT-1</b>	
<b>CORE INDICATOR REF #ED1</b>	<b>SYSTEM OPERATIONS EDUCATION &amp; TRAINING</b>	
<b>Objective</b>	<input type="checkbox"/> to measure the number of students who graduate from California approved EMT-1 training programs each year.	
<b>Classification</b>	<input type="checkbox"/> system ops - education	
<b>Type of Measure</b>	<input type="checkbox"/> structural	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> number per year	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - No <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> NA	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> graduates of Cal approved EMT-1 Training Programs	<input type="checkbox"/> EMSA # <input type="checkbox"/>
<b>Denominator Data Source</b>	LEMSA Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> NA	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> NA	<input type="checkbox"/>
<b>Numerator Data Source</b>	<input type="checkbox"/> NA	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> number value per 12 month period	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> NA	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38
<b>Indicator Exclusion Criteria</b>		
<b>References</b>	<ul style="list-style-type: none"> <li>• Committee on Accreditation of Educational Programs for Emergency Medical Services Professions (CAEPEMSP)</li> <li>• Accreditation Guidelines ; Quality Indicator Reporting Criteria Belford, Texas. 817 345-8519</li> <li>• NHTSA (2000) EMS Educational Agenda for the Future; A Systems Approach, Washington DC; Government Print Office</li> <li>• National Registry of EMT's; (1993) National EMS Education &amp; Practice Blueprint. Columbia, Ohio</li> <li>• Skelton MB, McSwain NE. A study of Cognitive and Technical Skills Deterioration Among Trained paramedics. JACEP 1997;6:</li> </ul>	

	436-438	
Source	<input type="checkbox"/> California EMSA Vision Project	
CORE INDICATOR INDEX # ED1B	<b>EMS EDUCATION &amp; TRAINING</b>	
Measure	% Certified per Year: EMT-1	
CORE INDICATOR REF #ED1	<b>SYSTEM OPERATIONS</b> EDUCATION & TRAINING	
Objective	<input type="checkbox"/> to measure the number of students who graduate from California approved EMT-1 training programs each year.	
Classification	<input type="checkbox"/> system ops - education	
Type of Measure	<input type="checkbox"/> structural	
Domain of Performance	<input type="checkbox"/> Volume	
Indicator Reporting Value	<input type="checkbox"/> number per year	
Display Format	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart	
Frequency of Display	<input type="checkbox"/> Monthly x 12	
Measures of Central Tendency	<input type="checkbox"/> mean - No <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
Trending Analysis	<input type="checkbox"/> NA	
Minimum Data Values	<input type="checkbox"/> 30 values per measure	
Sampling	<input type="checkbox"/> Periodic - Rate	
Aggregation	<input type="checkbox"/> Yes	
Blinded	<input type="checkbox"/> Yes	
Beta Testing	<input type="checkbox"/> None to Date	
Population Denominator (D)	<input type="checkbox"/> NA	
Denominator	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> graduates of Cal approved EMT-1 Training Programs	<input type="checkbox"/> EMSA # <input type="checkbox"/>
Denominator Data Source	LEMSA Records	
Population Subset Numerator (N)	<input type="checkbox"/> NA	
Numerator	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> NA	<input type="checkbox"/>
Numerator Data Source	<input type="checkbox"/> NA	
Description of Indicator Formula	<input type="checkbox"/> number value per 12 month period	
Indicator Formula Numeric Expression	<input type="checkbox"/> NA	
Linkage	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38
Stratification	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38
Indicator Exclusion Criteria		
References	<ul style="list-style-type: none"> <li>• Committee on Accreditation of Educational Programs for Emergency Medical Services Professions (CAEPEMSP)</li> <li>• Accreditation Guidelines ; Quality Indicator Reporting Criteria Belford, Texas. 817 345-8519</li> <li>• NHTSA (2000) EMS Educational Agenda for the Future; A Systems Approach, Washington DC; Government Print Office</li> </ul>	

	<ul style="list-style-type: none"> <li>National Registry of EMT's; (1993) National EMS Education &amp; Practice Blueprint. Columbia, Ohio</li> <li>Skelton MB, McSwain NE. A study of Cognitive and Technical Skills Deterioration Among Trained paramedics. JACEP 1997;6: 436-438</li> </ul>	
Source	<input type="checkbox"/> California EMSA Vision Project	
CORE INDICATOR INDEX # ED1C	<b>EMS EDUCATION &amp; TRAINING</b>	
Measure	<b>Training Seats Available per year: EMT-Paramedic Training Programs</b>	
CORE INDICATOR REF #ED1	<b>SYSTEM OPERATIONS EDUCATION &amp; TRAINING</b>	
Objective	<input type="checkbox"/> to measure the number of training seats available each year for paramedic training at approved EMT-P training programs.	
Classification	<input type="checkbox"/> system ops - education	
Type of Measure	<input type="checkbox"/> structural	
Domain of Performance	<input type="checkbox"/> Volume	
Indicator Reporting Value	<input type="checkbox"/> number per year	
Display Format	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart	
Frequency of Display	<input type="checkbox"/> Monthly x 12	
Measures of Central Tendency	<input type="checkbox"/> mean - No <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
Trending Analysis	<input type="checkbox"/> NA	
Minimum Data Values	<input type="checkbox"/> 30 values per measure	
Sampling	<input type="checkbox"/> Periodic - Rate	
Aggregation	<input type="checkbox"/> Yes	
Blinded	<input type="checkbox"/> Yes	
Beta Testing	<input type="checkbox"/> None to Date	
Population Denominator (D)	<input type="checkbox"/> NA	
Denominator	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> training seats/positions at EMT-P Training Programs	<input type="checkbox"/> EMSA # <input type="checkbox"/>
Denominator Data Source	LEMSA Records	
Population Subset Numerator (N)	<input type="checkbox"/> NA	
Numerator	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> NA	<input type="checkbox"/>
Numerator Data Source	<input type="checkbox"/> NA	
Description of Indicator Formula	<input type="checkbox"/> number value per 12 month period	
Indicator Formula Numeric Expression	<input type="checkbox"/> NA	
Linkage	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Provider	<input type="checkbox"/> EMSA #29
Stratification	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by geographic location	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38
Indicator Exclusion Criteria		
References	<ul style="list-style-type: none"> <li>Committee on Accreditation of Educational Programs for Emergency Medical Services Professions (CAEPEMSP)</li> <li>Accreditation Guidelines ; Quality Indicator Reporting Criteria</li> </ul>	

	<p>Belford, Texas. 817 345-8519</p> <ul style="list-style-type: none"> <li>• NHTSA (2000) EMS Educational Agenda for the Future; A Systems Approach, Washington DC; Government Print Office</li> <li>• National Registry of EMT's; (1993) National EMS Education &amp; Practice Blueprint. Columbia, Ohio</li> </ul> <p>Skelton MB, McSwain NE. A study of Cognitive and Technical Skills Deterioration Among Trained paramedics. JACEP 1997;6: 436-438</p>
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project

<b>CORE INDICATOR INDEX # ED1D</b>	<b>EMS EDUCATION &amp; TRAINING</b>	
<b>Measure</b>	<b>Graduates per year: EMT-Paramedic</b>	
<b>CORE INDICATOR REF #ED1</b>	<b>SYSTEM OPERATIONS EDUCATION &amp; TRAINING</b>	
<b>Objective</b>	<input type="checkbox"/> to measure the number of students who graduate from California approved EMT-P training programs each year.	
<b>Classification</b>	<input type="checkbox"/> system ops - education	
<b>Type of Measure</b>	<input type="checkbox"/> structural	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> number per year	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - No <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> NA	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> graduates of Cal approved EMT-P Training Programs	<input type="checkbox"/> EMSA # <input type="checkbox"/>
<b>Denominator Data Source</b>	LEMSA Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> NA	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> NA	<input type="checkbox"/>
<b>Numerator Data Source</b>	<input type="checkbox"/> NA	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> number value per 12 month period	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> NA	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38
<b>Indicator Exclusion Criteria</b>		
<b>References</b>	<ul style="list-style-type: none"> <li>• Committee on Accreditation of Educational Programs for Emergency Medical Services Professions (CAEPEMSP)</li> <li>• Accreditation Guidelines ; Quality Indicator Reporting Criteria Belford, Texas. 817 345-8519</li> <li>• NHTSA (2000) EMS Educational Agenda for the Future; A Systems Approach, Washington DC; Government Print Office</li> <li>• National Registry of EMT's; (1993) National EMS Education &amp; Practice Blueprint. Columbia, Ohio</li> <li>• Skelton MB, McSwain NE. A study of Cognitive and Technical Skills Deterioration Among Trained paramedics. JACEP 1997;6:</li> </ul>	



	436-438	
Source	<input type="checkbox"/> California EMSA Vision Project	
CORE INDICATOR INDEX # ED1E	<b>EMS EDUCATION &amp; TRAINING</b>	
Measure	% Licensed within 12 months of completion; EMT-P	
CORE INDICATOR REF #ED1	SYSTEM OPERATIONS EDUCATION & TRAINING	
Objective	<input type="checkbox"/> to measure the number of students who graduate from California approved EMT-P training programs that become employed as a licensed paramedic within 12 months	
Classification	<input type="checkbox"/> system ops - education	
Type of Measure	<input type="checkbox"/> structural	
Domain of Performance	<input type="checkbox"/> Volume	
Indicator Reporting Value	<input type="checkbox"/> %	
Display Format	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart	
Frequency of Display	<input type="checkbox"/> Monthly x 12	
Measures of Central Tendency	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
Trending Analysis	<input type="checkbox"/> NA	
Minimum Data Values	<input type="checkbox"/> 30 values per measure	
Sampling	<input type="checkbox"/> Periodic - Rate	
Aggregation	<input type="checkbox"/> Yes	
Blinded	<input type="checkbox"/> Yes	
Beta Testing	<input type="checkbox"/> None to Date	
Population Denominator (D)	<input type="checkbox"/> NA	
Denominator	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> graduates of Cal approved EMT-P Training Programs	<input type="checkbox"/> EMSA # <input type="checkbox"/>
Denominator Data Source	LEMSA Records	
Population Subset Numerator (N)	<input type="checkbox"/> graduates employed as licensed paramedics within 12 months of graduation	
Numerator	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Graduates of California approved EMT-P programs <input type="checkbox"/> Graduates Licensed and employed as paramedics	<input type="checkbox"/> EMSA#
Numerator Data Source	<input type="checkbox"/> LEMSAs <input type="checkbox"/> California Approved EMT-P Training Programs	
Description of Indicator Formula	<input type="checkbox"/> Numerator (N) divided by Denominator (D) x 100 = %	
Indicator Formula Numeric Expression	<input type="checkbox"/> N/D x 100 = %	
Linkage	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38
Stratification	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by program	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #
Indicator Exclusion Criteria	<ul style="list-style-type: none"> <li>• Non California Graduates</li> <li>• Not employed within 12 months of graduation.</li> </ul>	

<b>References</b>	<ul style="list-style-type: none"> <li>• Committee on Accreditation of Educational Programs for Emergency Medical Services Professions (CAEPEMSP)</li> <li>• Accreditation Guidelines ; Quality Indicator Reporting Criteria Belford, Texas. 817 345-8519</li> <li>• NHTSA (2000) EMS Educational Agenda for the Future; A Systems Approach, Washington DC; Government Print Office</li> <li>• National Registry of EMT's; (1993) National EMS Education &amp; Practice Blueprint. Columbia, Ohio</li> <li>• Skelton MB, McSwain NE. A study of Cognitive and Technical Skills Deterioration Among Trained paramedics. JACEP 1997;6: 436-438</li> </ul>
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project

<b>CORE INDICATOR INDEX # ED1F</b>	<b>EMS EDUCATION &amp; TRAINING</b>	
<b>Measure</b>	<b>% Employed within 12 months; EMT-P Graduates</b>	
<b>CORE INDICATOR REF #ED1</b>	<b>SYSTEM OPERATIONS EDUCATION &amp; TRAINING</b>	
<b>Objective</b>	<input type="checkbox"/> to measure the number of students who graduate from California approved EMT-P training programs that become employed as a licensed paramedic within 12 months	
<b>Classification</b>	<input type="checkbox"/> system ops - education	
<b>Type of Measure</b>	<input type="checkbox"/> structural	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> NA	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> graduates of Cal approved EMT-P Training Programs	<input type="checkbox"/> EMSA # <input type="checkbox"/>
<b>Denominator Data Source</b>	LEMSA Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> graduates employed as licensed paramedics within 12 months of graduation	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Graduates of California approved EMT-P programs <input type="checkbox"/> Graduates Licensed and employed as paramedics	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> California Approved EMT-P Training Programs	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> Numerator (N) divided by Denominator (D) x 100 = %	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> N/D x 100 = %	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by program	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<ul style="list-style-type: none"> <li>• Non California Graduates</li> <li>• Not employed within 12 months of graduation.</li> </ul>	
<b>References</b>	<ul style="list-style-type: none"> <li>• Committee on Accreditation of Educational Programs for Emergency Medical Services Professions (CAEPEMSP)</li> </ul>	

	<ul style="list-style-type: none"> <li>• Accreditation Guidelines ; Quality Indicator Reporting Criteria Belford, Texas. 817 345-8519</li> <li>• NHTSA (2000) EMS Educational Agenda for the Future; A Systems Approach, Washington DC; Government Print Office</li> <li>• National Registry of EMT's; (1993) National EMS Education &amp; Practice Blueprint. Columbia, Ohio</li> </ul> <p>Skelton MB, McSwain NE. A study of Cognitive and Technical Skills Deterioration Among Trained paramedics. JACEP 1997;6: 436-</p>
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project

<b>CORE INDICATOR INDEX # ED1G</b>	<b>EMS EDUCATION &amp; TRAINING</b>	
<b>Measure</b>	<b>California Approved CE Providers</b>	
<b>CORE INDICATOR REF #ED1</b>	<b>SYSTEM OPERATIONS</b>	
<b>Objective</b>	EDUCATION & TRAINING	
<b>Classification</b>	<input type="checkbox"/> to measure the number of California Approved CE Providers	
<b>Type of Measure</b>	<input type="checkbox"/> system ops - education	
<b>Domain of Performance</b>	<input type="checkbox"/> structural	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> Volume	
<b>Display Format</b>	<input type="checkbox"/> number per state	
<b>Frequency of Display</b>	<input type="checkbox"/> Listing	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> Cube Chart	
<b>Trending Analysis</b>	<input type="checkbox"/> Monthly x 12	
<b>Minimum Data Values</b>	<input type="checkbox"/> mean - No	
<b>Sampling</b>	<input type="checkbox"/> mode - No	
<b>Aggregation</b>	<input type="checkbox"/> variance - No	
<b>Blinded</b>	<input type="checkbox"/> standard deviation - No	
<b>Beta Testing</b>	<input type="checkbox"/> NA	
<b>Population Denominator (D)</b>	<input type="checkbox"/> 30 values per measure	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> NA	EMSA
<b>Denominator Data Source</b>	LEMSA Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> NA	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> NA	<input type="checkbox"/>
<b>Numerator Data Source</b>	<input type="checkbox"/> NA	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numeric value	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> NA	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name	<input type="checkbox"/> EMSA #29
	<input type="checkbox"/> dob	<input type="checkbox"/> EMSA #35
	<input type="checkbox"/> age	<input type="checkbox"/> EMSA #36
	<input type="checkbox"/> gender	<input type="checkbox"/> EMSA #38
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age	<input type="checkbox"/> EMSA #36
	<input type="checkbox"/> by gender	<input type="checkbox"/> EMSA #38
<b>Indicator Exclusion Criteria</b>		
<b>References</b>	<ul style="list-style-type: none"> <li>• Committee on Accreditation of Educational Programs for Emergency Medical Services Professions (CAEPEMSP)</li> <li>• Accreditation Guidelines ; Quality Indicator Reporting Criteria Belford, Texas. 817 345-8519</li> <li>• NHTSA (2000) EMS Educational Agenda for the Future; A Systems Approach, Washington DC; Government Print Office</li> <li>• National Registry of EMT's; (1993) National EMS Education &amp; Practice Blueprint. Columbia, Ohio</li> <li>• Skelton MB, McSwain NE. A study of Cognitive and Technical Skills Deterioration Among Trained paramedics. JACEP 1997;6: 436-438</li> </ul>	

<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project
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<b>CORE INDICATOR INDEX # ED1H</b>	<b>EMS EDUCATION &amp; TRAINING</b>	
<b>Measure</b>	<b>Number of CEU's Offered per Year California Approved CE Providers</b>	
<b>CORE INDICATOR REF #ED1</b>	<b>SYSTEM OPERATIONS EDUCATION &amp; TRAINING</b>	
<b>Objective</b>	<input type="checkbox"/> to measure the cumulative total Continuing education Hours offered in California by California Approved CE Providers annually	
<b>Classification</b>	<input type="checkbox"/> system ops - education	
<b>Type of Measure</b>	<input type="checkbox"/> structural	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> hours per year	
<b>Display Format</b>	<input type="checkbox"/> Listing <input type="checkbox"/> Cube Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - No <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> NA	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> NA	<input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	LEMSA Records EMSA Records CE Providers Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> NA	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> NA	<input type="checkbox"/>
<b>Numerator Data Source</b>	<input type="checkbox"/> NA	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numeric value	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> NA	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Provider <input type="checkbox"/> Geographic location	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> CE Provider <input type="checkbox"/> Geographic Location	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38
<b>Indicator Exclusion Criteria</b>		
<b>References</b>	<ul style="list-style-type: none"> <li>• Committee on Accreditation of Educational Programs for Emergency Medical Services Professions (CAEPEMSP)</li> <li>• Accreditation Guidelines ; Quality Indicator Reporting Criteria Belford, Texas. 817 345-8519</li> <li>• NHTSA (2000) EMS Educational Agenda for the Future; A Systems Approach, Washington DC; Government Print Office</li> <li>• National Registry of EMT's; (1993) National EMS Education &amp; Practice Blueprint. Columbia, Ohio</li> <li>• Skelton MB, McSwain NE. A study of Cognitive and Technical Skills Deterioration Among Trained paramedics. JACEP 1997;6:</li> </ul>	

	436-438
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project



CORE INDICATOR INDEX # MA1A	ALS UNIT CONFIGURATION	
Measure	Cardiac Arrest Survival Rate- 2 ALS Personnel	
CORE INDICATOR REF #MA1	SYSTEM OPERATIONS MANPOWER	
Objective	<input type="checkbox"/> to measure % of patients who survive to hospital discharge after suffering a pulseless ventricular fibrillation (VF) or ventricular tachycardia (VT) event which is unwitnessed and treated by a ALS Response Unit that is staffed by two (2) ALS level personnel	
Classification	<input type="checkbox"/> System Ops – Manpower	
Type of Measure	<input type="checkbox"/> outcome	
Domain of Performance	<input type="checkbox"/> Effectiveness	
Indicator Reporting Value	<input type="checkbox"/> %	
Display Format	<input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
Frequency of Display	<input type="checkbox"/> Monthly x 12	
Measures of Central Tendency	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
Trending Analysis	<input type="checkbox"/> NA	
Minimum Data Values	<input type="checkbox"/> 30 values per measure	
Sampling	<input type="checkbox"/> Periodic - Rate	
Aggregation	<input type="checkbox"/> Yes	
Blinded	<input type="checkbox"/> Yes	
Beta Testing	<input type="checkbox"/> None to Date	
Population Denominator (D)	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event unwitnessed by EMS personnel and are treated by an EMS Response Unit staffed with at least two (2) ALS level personnel	
Denominator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT event was in prehospital setting <input type="checkbox"/> patient VF & VT event was not witnessed by EMS personnel <input type="checkbox"/> patient treated by an EMS Response Unit staffed with at least two (2) ALS level personnel <input type="checkbox"/> specified queried time period match numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52 <input type="checkbox"/> EMSA #11
Denominator Data Source	<input type="checkbox"/> EMS Medical Records	
Population Subset Numerator (N)	<input type="checkbox"/> the number of patients who survive to hospital discharge	
Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patients who survive to hospital discharge <input type="checkbox"/> Subset of denominator	<input type="checkbox"/> discharge status (TBD)
Numerator Data Source	<input type="checkbox"/> hospital discharge records <input type="checkbox"/> OSHPD discharge record	

<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by number of defibrillations <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (99.62) <input type="checkbox"/> EMSA #25
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where resuscitation was not attempted by EMS personnel <input type="checkbox"/> event not witnessed by EMS personnel <input type="checkbox"/> patient has not survived to hospital discharge	
<b>References</b>	<input type="checkbox"/> Braun O, McCallion R, Characteristics of Mid-Sized Urban EMS System. Ann Emerg Med. 19:536546, 1990. <input type="checkbox"/> California Code of Regulations Title 22, Social Security Division 9, Prehospital EMS 1991 <input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986.	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

CORE INDICATOR INDEX # MA1B	ALS UNIT CONFIGURATION	
Measure	Cardiac Arrest Survival Rate- 1 ALS Personnel	
CORE INDICATOR REF #MA1	SYSTEM OPERATIONS MANPOWER	
Objective	<input type="checkbox"/> to measure % of patients who survive to hospital discharge after suffering a pulseless ventricular fibrillation (VF) or ventricular tachycardia (VT) event which is unwitnessed and treated by a ALS Response Unit that is staffed by no more than one (1) ALS level personnel	
Classification	<input type="checkbox"/> System Ops – Manpower	
Type of Measure	<input type="checkbox"/> outcome	
Domain of Performance	<input type="checkbox"/> Effectiveness	
Indicator Reporting Value	<input type="checkbox"/> %	
Display Format	<input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
Frequency of Display	<input type="checkbox"/> Monthly x 12	
Measures of Central Tendency	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
Trending Analysis	<input type="checkbox"/> NA	
Minimum Data Values	<input type="checkbox"/> 30 values per measure	
Sampling	<input type="checkbox"/> Periodic - Rate	
Aggregation	<input type="checkbox"/> Yes	
Blinded	<input type="checkbox"/> Yes	
Beta Testing	<input type="checkbox"/> None to Date	
Population Denominator (D)	<input type="checkbox"/> the number of adult patients who suffer a pulseless VF or VT event unwitnessed by EMS personnel and are treated by an EMS Response Unit staffed with no more than one (1) ALS level personnel	
Denominator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has suffered a VF or VT event) <input type="checkbox"/> patient was pulseless (patient VF or VT event was in prehospital setting <input type="checkbox"/> patient VF & VT event was not witnessed by EMS personnel <input type="checkbox"/> patient treated by an EMS Response Unit staffed with no more than (1) ALS level personnel <input type="checkbox"/> specified queried time period match numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52 <input type="checkbox"/> EMSA #11
Denominator Data Source	<input type="checkbox"/> EMS Medical Records	
Population Subset Numerator (N)	<input type="checkbox"/> the number of patients who survive to hospital discharge	
Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patients who survive to hospital discharge <input type="checkbox"/> Subset of denominator	<input type="checkbox"/> discharge status (TBD)
Numerator Data Source	<input type="checkbox"/> hospital discharge records <input type="checkbox"/> OSHPD discharge record	

<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by number of defibrillations <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (99.62) <input type="checkbox"/> EMSA #25
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where resuscitation was not attempted by EMS personnel <input type="checkbox"/> event not witnessed by EMS personnel <input type="checkbox"/> patient has not survived to hospital discharge	
<b>References</b>	<input type="checkbox"/> Braun O, McCallion R, Characteristics of Mid-Sized Urban EMS System. Ann Emerg Med. 19:536546, 1990. <input type="checkbox"/> California Code of Regulations Title 22, Social Security Division 9, Prehospital EMS 1991 <input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986.	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

CORE INDICATOR INDEX # MA1C	ALS UNIT CONFIGURATION	
Measure	Critical Trauma Survival Rate- 2 ALS Personnel	
CORE INDICATOR REF #MA1	SYSTEM OPERATIONS MANPOWER	
Objective	<input type="checkbox"/> to measure % of patients who survive to hospital discharge for patients who meet critical trauma criteria and treated by a ALS Response Unit that is staffed by two (2) ALS level personnel	
Classification	<input type="checkbox"/> System Ops – Manpower	
Type of Measure	<input type="checkbox"/> outcome	
Domain of Performance	<input type="checkbox"/> Effectiveness	
Indicator Reporting Value	<input type="checkbox"/> %	
Display Format	<input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
Frequency of Display	<input type="checkbox"/> Monthly x 12	
Measures of Central Tendency	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
Trending Analysis	<input type="checkbox"/> NA	
Minimum Data Values	<input type="checkbox"/> 30 values per measure	
Sampling	<input type="checkbox"/> Periodic - Rate	
Aggregation	<input type="checkbox"/> Yes	
Blinded	<input type="checkbox"/> Yes	
Beta Testing	<input type="checkbox"/> None to Date	
Population Denominator (D)	<input type="checkbox"/> the number of adult patients who meet critical trauma criteria as defined by EMS protocol; (Mechanism with GCS <10, BP<100 systolic,) and are treated by an EMS Response Unit staffed with at least two (2) ALS level personnel	
Denominator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has met critical trauma criteria <input type="checkbox"/> trauma event was in prehospital setting <input type="checkbox"/> patient treated by an EMS Response Unit staffed with at least two (2) ALS level personnel <input type="checkbox"/> specified queried time period match numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52 <input type="checkbox"/> EMSA #11
Denominator Data Source	<input type="checkbox"/> EMS Medical Records	
Population Subset Numerator (N)	<input type="checkbox"/> the number of patients who survive to hospital discharge	
Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patients who survive to hospital discharge <input type="checkbox"/> Subset of denominator	<input type="checkbox"/> discharge status (TBD)
Numerator Data Source	<input type="checkbox"/> hospital discharge records <input type="checkbox"/> OSHPD discharge record	
Description of Indicator Formula	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
Indicator Formula Numeric Expression	<input type="checkbox"/> $N / D = \%$	
Linkage	Linkage Options	EMSA Data Elements
	<input type="checkbox"/> name <input type="checkbox"/> dob	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35

	<input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-traumatic etiologies, <input type="checkbox"/> traumatic etiologies where patients do not met critical trauma criteria <input type="checkbox"/> patient not treated by EMS personnel <input type="checkbox"/> patient treated by response unit with no more than one (1) ALS personnel	
<b>References</b>	<input type="checkbox"/> Braun O, McCallion R, Characteristics of Mid-Sized Urban EMS System. Ann Emerg Med. 19:536546, 1990. <input type="checkbox"/> California Code of Regulations Title 22, Social Security Division 9, Prehospital EMS 1991 <input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986.	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

CORE INDICATOR INDEX # MA1D	ALS UNIT CONFIGURATION	
Measure	Critical Trauma Survival Rate- 1 ALS Personnel	
CORE INDICATOR REF #MA1	SYSTEM OPERATIONS MANPOWER	
Objective	<input type="checkbox"/> to measure % of patients who survive to hospital discharge for patients who meet critical trauma criteria and treated by a ALS Response Unit that is staffed by no more than one (1) ALS level personnel	
Classification	<input type="checkbox"/> System Ops – Manpower	
Type of Measure	<input type="checkbox"/> outcome	
Domain of Performance	<input type="checkbox"/> Effectiveness	
Indicator Reporting Value	<input type="checkbox"/> %	
Display Format	<input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
Frequency of Display	<input type="checkbox"/> Monthly x 12	
Measures of Central Tendency	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
Trending Analysis	<input type="checkbox"/> NA	
Minimum Data Values	<input type="checkbox"/> 30 values per measure	
Sampling	<input type="checkbox"/> Periodic - Rate	
Aggregation	<input type="checkbox"/> Yes	
Blinded	<input type="checkbox"/> Yes	
Beta Testing	<input type="checkbox"/> None to Date	
Population Denominator (D)	<input type="checkbox"/> the number of adult patients who meet critical trauma criteria as defined by EMS protocol; (Mechanism with GCS <10, BP<100 systolic,) and are treated by an EMS Response Unit staffed with no more than one (1) ALS level personnel	
Denominator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient has met critical trauma criteria <input type="checkbox"/> trauma event was in prehospital setting <input type="checkbox"/> patient treated by an EMS Response Unit staffed with no more than one (1) ALS level personnel <input type="checkbox"/> specified queried time period match numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52 <input type="checkbox"/> EMSA #11
Denominator Data Source	<input type="checkbox"/> EMS Medical Records	
Population Subset Numerator (N)	<input type="checkbox"/> the number of patients who survive to hospital discharge <input type="checkbox"/> Subset of denominator	
Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patients who survive to hospital discharge	<input type="checkbox"/> discharge status (TBD)
Numerator Data Source	<input type="checkbox"/> hospital discharge records <input type="checkbox"/> OSHPD discharge record	
Description of Indicator Formula	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
Indicator Formula Numeric Expression	<input type="checkbox"/> $N / D = \%$	
Linkage	Linkage Options	EMSA Data Elements
	<input type="checkbox"/> name <input type="checkbox"/> dob	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35

	<input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-traumatic etiologies, <input type="checkbox"/> traumatic etiologies where patients do not met critical trauma criteria <input type="checkbox"/> patient not treated by EMS personnel <input type="checkbox"/> patient treated by response unit staffed with at least two (2) or more ALS personnel	
<b>References</b>	<input type="checkbox"/> Braun O, McCallion R, Characteristics of Mid-Sized Urban EMS System. Ann Emerg Med. 19:536546, 1990. <input type="checkbox"/> California Code of Regulations Title 22, Social Security Division 9, Prehospital EMS 1991 <input type="checkbox"/> Utstein Model; Pitt, Penn Kass LE. One Year Survival after Prehospital Cardiac Arrest: The Utstein Model applied to Rural-Suburban EMS System. Ann of Emerg Med; 12:17-20, 1994 <input type="checkbox"/> Seattle Washington; Weaver DW, MD. Considerations for Improving Survival from Out of Hospital Cardiac Arrest. Ann of Emerg Med 15:10;1181, 1986.	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	



<b>CORE INDICATOR INDEX # PP1A</b>	<b>PUBLIC EDUCATION &amp; PREVENTION</b>	
<b>Measure</b>	<b>% Population Trained in Bystander CPR</b>	
<b>CORE INDICATOR REF #PP1A</b>	SYSTEM OPERATIONS <b>PUBLIC EDUCATION &amp; PREVENTION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of adult population in a specific EMS response area who are trained in bystander CPR.	
<b>Classification</b>	<input type="checkbox"/> system operations – Public Education & Prevention	
<b>Type of Measure</b>	<input type="checkbox"/> Structural	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume/Frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Listing <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adults in a specified geographic EMS response area..	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Adult has reached age 15 <input type="checkbox"/> Query is within a specified geographic EMS response area.	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54
<b>Denominator Data Source</b>	<ul style="list-style-type: none"> <li>• LEMSA Records</li> <li>• Public Census records</li> </ul>	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of adults who are trained in bystander CPR in a specified geographic EMS response area	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Adult has reached age 15 <input type="checkbox"/> Adult has taken an approved CPR training program <input type="checkbox"/> Subset of numerator <input type="checkbox"/> Query is within a specified geographic EMS response area as defined in denominator.	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<ul style="list-style-type: none"> <li>• <input type="checkbox"/> Public CPR Training Program Records</li> <li><input type="checkbox"/> LEMSA</li> </ul>	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by demoninator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	

Linkage	Linkage Options	EMSA Data Elements
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38
Stratification	Options	EMSA Data Elements
	<input type="checkbox"/> by age <input type="checkbox"/> by gender	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8
Indicator Exclusion Criteria	<input type="checkbox"/> Persons who have not reached age 15 years. <input type="checkbox"/> Persons not residing or employed in specified EMS Response Area.	
References	<ul style="list-style-type: none"> <li>National Highway Traffic Safety Administration (NHTSA); EMS Agenda for the Future, Washington, DC: Author</li> <li>Weaver, WD; Factors Influencing Survival of Out of Hospital Cardiac Arrest; J Am Coll Cardiol 7:752-757</li> </ul>	
Source	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR INDEX # PP1B</b>	<b>PUBLIC EDUCATION &amp; PREVENTION</b>	
<b>Measure</b>	<b>% Response Area Population Trained with PAD-AED Resources</b>	
<b>CORE INDICATOR REF #PP1A</b>	<b>SYSTEM OPERATIONS PUBLIC EDUCATION &amp; PREVENTION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of adult population in a specific EMS response area who are trained with Public Access Defibrillation (PAD) or Automatic Emergency Defibrillators (AED) resources.	
<b>Classification</b>	<input type="checkbox"/> system operations – Public Education & Prevention	
<b>Type of Measure</b>	<input type="checkbox"/> Structural	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume/Frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Listing <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adults in a specified geographic EMS response area..	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Adult has reached age 15 <input type="checkbox"/> Query is within a specified geographic EMS response area. <input type="checkbox"/> Subset of numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54
<b>Denominator Data Source</b>	<ul style="list-style-type: none"> <li>• LEMSA Records</li> <li>• Public Census records</li> </ul>	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of adults who are trained in bystander CPR in a specified geographic EMS response area	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Adult has reached age 15 <input type="checkbox"/> Adult has taken an approved PAD or AED training program and has defibrillation resources (units) readily available within three minutes. <input type="checkbox"/> Query is within a specified geographic EMS response area as defined in denominator.	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> Public PAD-AED Training Program Records <input type="checkbox"/> PAD Program Providers <input type="checkbox"/> AED Program Providers <input type="checkbox"/> LEMSA	
<b>Description of Indicator</b>	<input type="checkbox"/> numerator value (N) divided by demoninator value (D) multiplied	

<b>Formula</b>	by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Agency name	<input type="checkbox"/> EMSA #29
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by location	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Persons who have not reached age 15 years. <input type="checkbox"/> Persons not residing or employed in specified EMS Response Area.	
<b>References</b>	<ul style="list-style-type: none"> <li>National Highway Traffic Safety Administration (NHTSA); EMS Agenda for the Future, Washington, DC: Author</li> <li>Weaver, WD; Factors Influencing Survival of Out of Hospital Cardiac Arrest; J Am Coll Cardiol 7:752-757</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR Index # RE1A</b>	<b>SHORTNESS OF BREATH - SIGNS &amp; SYMPTOMS OF BRONCHOSPASM</b>	
<b>Measure</b>	<b>Oxygen: Frequency of Administration</b>	
<b>CORE INDICATOR REF #RE1</b>	<b>RESPIRATORY TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who exhibit signs & symptoms of shortness of breath with bronchospasm who receive oxygen as part of treatment by EMS personnel in the Prehospital setting	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Compliance - frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Listing <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath with bronchospasm and are treated by EMS personnel in Prehospital setting	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath with bronchospasm <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient was treated by EMS personnel <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive oxygen administered by EMS personnel in Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients who receive oxygen <input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient was treated by EMS personnel	<input type="checkbox"/> EMSA#

	<input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time period match denominator	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-respiratory etiologies, <input type="checkbox"/> respiratory etiologies where treatment not attempted by EMS personnel	
<b>References</b>	<ul style="list-style-type: none"> <li>Bledsoe B, Paramedic Emergency Care; 3<sup>rd</sup> Ed; Brady Publishing. 1997; 277-279</li> <li>Rossing, TH; A Controlled of the Use of Single vs. Combined Drug Therapy in the Treatment of Acute Episodes of Asthma. Am Rv Respir Dis 1981;123:190</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	
<b>CORE INDICATOR Index # RE1B</b>	<b><u>SHORTNESS OF BREATH - SIGNS &amp; SYMPTOMS OF BRONCHOSPASM</u></b>	
<b>Measure</b>	<b><u>Oxygen: Desired Effect Achieved</u></b>	
<b>CORE INDICATOR REF #RE1</b>	<b>RESPIRATORY TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from shortness of breath with bronchospasm who achieve a desired therapeutic effect from the administration of oxygen in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	

<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for SOB with bronchospasm who receive oxygen as part of their treatment.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for shortness of breath or dyspnea. <input type="checkbox"/> Patients with signs & symptoms of bronchospasm <input type="checkbox"/> patients who receive oxygen by any modality or device. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive oxygen where a desired effect is achieved in the Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient's who are treated in prehospital setting <input type="checkbox"/> Desired effect is any change in patient status where there is full or partial relief of symptoms <input type="checkbox"/> desired effect is reported by EMS personnel through observation, assessment or by verbal questioning of patient. <input type="checkbox"/> Subset of denominator	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where cardiac chest pain was not chief complaint <input type="checkbox"/> oxygen not administered	

	<input type="checkbox"/> desired effect from oxygen administration not reported. <input type="checkbox"/> event not treated by EMS personnel
<b>References</b>	<ul style="list-style-type: none"> <li>• Bledsoe B, Paramedic Emergency Care; 3<sup>rd</sup> Ed; Brady Publishing. 1997; 277-279</li> <li>• Rossing, TH; A Controlled of the Use of Single vs. Combined Drug Therapy in the Treatment of Acute Episodes of Asthma. Am Rv Respir Dis 1981;123:190</li> </ul>
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project



<b>CORE INDICATOR</b> Index # RE1C	<b>SHORTNESS OF BREATH - SIGNS &amp; SYMPTOMS OF BRONCHOSPASM</b>	
<b>Measure</b>	<b>Bronchodilator: Frequency of Administration</b>	
<b>CORE INDICATOR REF</b> #RE1	<b>RESPIRATORY TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who exhibit signs & symptoms of shortness of breath with bronchospasm who receive a bronchodilator medication as part of treatment by EMS personnel in the Prehospital setting	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Compliance - frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Listing <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath with bronchospasm and are treated by EMS personnel in Prehospital setting	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath with bronchospasm <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient was treated by EMS personnel <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset</b> <b>Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive a Bronchodilator medication administered by EMS personnel in Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients who receive oxygen <input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient was treated by	<input type="checkbox"/> EMSA#

	<input type="checkbox"/> EMS personnel <input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time period match numerator	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-respiratory etiologies, <input type="checkbox"/> respiratory etiologies where treatment not attempted by EMS personnel	
<b>References</b>	<ul style="list-style-type: none"> <li>Bledsoe B, Paramedic Emergency Care; 3<sup>rd</sup> Ed; Brady Publishing. 1997; 277-279</li> <li>Rossing, TH; A Controlled of the Use of Single vs. Combined Drug Therapy in the Treatment of Acute Episodes of Asthma. Am Rv Respir Dis 1981;123:190</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # RE1D</b>	<b>SHORTNESS OF BREATH -</b> <b>SIGNS &amp; SYMPTOMS OF BRONCHOSPASM</b>	
<b>Measure</b>	<b>Bronchodilator: Desired Effect Achieved</b>	
<b>CORE INDICATOR REF</b> <b>#RE1</b>	RESPIRATORY TREATMENT PROTOCOL UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from shortness of breath with bronchospasm who achieve a desired therapeutic effect from the administration of Bronchodilator drug administration in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for shortness of breathe with bronchospasm who receive Bronchodilator medication as part of their treatment in Prehospital setting.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for shortness of breathe with bronchospasm . <input type="checkbox"/> patients who receive bronchodilator by any modality or device. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset</b> <b>Numerator (N)</b>	<input type="checkbox"/> the number of patients who achieve a desired effect from Prehospital administration of bronchodilator	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient's who are treated in prehospital setting <input type="checkbox"/> Desired effect is any change in patient status where there is full or partial relief of symptoms <input type="checkbox"/> desired effect is reported by EMS personnel through observation, assessment	<input type="checkbox"/> EMSA#

	or by verbal questioning of patient. <input type="checkbox"/> Bronchodilator is a Beta 2 specific drug approved for administration by local EMS Authority via inhalation or IV/IM/SQ administration <input type="checkbox"/> Subset of denominator	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where cardiac chest pain was not chief complaint <input type="checkbox"/> Bronchodilator not administered <input type="checkbox"/> desired effect from oxygen administration not reported. <input type="checkbox"/> event not treated by EMS personnel	
<b>References</b>	<ul style="list-style-type: none"> <li>Bledsoe B, Paramedic Emergency Care; 3<sup>rd</sup> Ed; Brady Publishing. 1997; 277-279</li> <li>Rossing, TH; A Controlled of the Use of Single vs. Combined Drug Therapy in the Treatment of Acute Episodes of Asthma. Am Rv Respir Dis 1981;123:190</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # RE1E</b>	<b>SHORTNESS OF BREATH -</b> <b>SIGNS &amp; SYMPTOMS OF BRONCHOSPASM</b>	
<b>Measure</b>	<b>Decrease or Relief of Symptoms</b>	
<b>CORE INDICATOR REF</b> <b>#RE1</b>	<b>RESPIRATORY</b> <b>TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who exhibit signs & symptoms of shortness of breath with bronchospasm that show a decrease or relief of symptoms after treatment by EMS personnel in the prehospital setting	
<b>Classification</b>	<input type="checkbox"/> Medical care - Clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Compliance - frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath with bronchospasm and are treated by EMS personnel in Prehospital setting	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath with bronchospasm <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient was treated by EMS personnel <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients that show decrease or relief of symptoms after treatment by EMS personnel in Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients who receive oxygen <input type="checkbox"/> patients who show decrease or relief of symptoms after treatment <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient was treated by EMS personnel	<input type="checkbox"/> EMSA#

	<input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time period match numerator	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-respiratory etiologies, <input type="checkbox"/> respiratory etiologies where treatment not attempted by EMS personnel	
<b>References</b>	<ul style="list-style-type: none"> <li>Bledsoe B, Paramedic Emergency Care; 3<sup>rd</sup> Ed; Brady Publishing. 1997; 277-279</li> <li>Rossing, TH; A Controlled of the Use of Single vs. Combined Drug Therapy in the Treatment of Acute Episodes of Asthma. Am Rv Respir Dis 1981;123:190</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

CORE INDICATOR Index # RE1F	SHORTNESS OF BREATH - SIGNS & SYMPTOMS OF BRONCHOSPASM	
Measure	Provider Impression Match ED Diagnosis	
CORE INDICATOR REF #RE1	RESPIRATORY TREATMENT PROTOCOL UTILIZATION	
Objective	<input type="checkbox"/> to measure % of patients whose primary clinical impression of shortness of breath with bronchospasm as assessed by EMS personnel match emergency department diagnosis.	
Classification	<input type="checkbox"/> Medical care - Clinical	
Type of Measure	<input type="checkbox"/> Outcome	
Domain of Performance	<input type="checkbox"/> Compliance - frequency	
Indicator Reporting Value	<input type="checkbox"/> %	
Display Format	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
Frequency of Display	<input type="checkbox"/> Monthly x 12	
Measures of Central Tendency	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
Trending Analysis	<input type="checkbox"/> NA	
Minimum Data Values	<input type="checkbox"/> 30 values per measure	
Sampling	<input type="checkbox"/> Periodic - Rate	
Aggregation	<input type="checkbox"/> Yes	
Blinded	<input type="checkbox"/> Yes	
Beta Testing	<input type="checkbox"/> None to Date	
Population Denominator (D)	<input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breathe with bronchospasm and reported as primary impression by EMS personnel.	
Denominator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients reported as signs & symptoms of shortness of breath with bronchospasm as primary impression by EMS personnel <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52
Denominator Data Source	EMS Medical Records	
Population Subset Numerator (N)	<input type="checkbox"/> the number of patients treated by EMS personnel where ED diagnosis indicates shortness of breath with bronchospasm	
Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients treated by EMS personnel <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> ED diagnosis indicates Shortness of breath with bronchospasm or equivalent description. <input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA#

<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level <input type="checkbox"/> by symptoms	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-respiratory etiologies, <input type="checkbox"/> respiratory etiologies where treatment not attempted by EMS personnel	
<b>References</b>	<ul style="list-style-type: none"> <li>Bledsoe B, Paramedic Emergency Care; 3<sup>rd</sup> Ed; Brady Publishing. 1997; 277-279</li> <li>Rossing, TH; A Controlled of the Use of Single vs. Combined Drug Therapy in the Treatment of Acute Episodes of Asthma. Am Rv Respir Dis 1981;123:190</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	



<b>CORE INDICATOR</b> <b>Index # RE1G</b>	<b>SHORTNESS OF BREATH -</b> <b>SIGNS &amp; SYMPTOMS OF BRONCHOSPASM</b>	
<b>Measure</b>	<b>Survival to Hospital Discharge</b>	
<b>CORE INDICATOR REF</b> <b>#RE1</b>	<b>RESPIRATORY</b> <b>TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients whose primary clinical impression of shortness of breath with bronchospasm as assessed by EMS personnel survive to hospital discharge.	
<b>Classification</b>	<input type="checkbox"/> Medical care - Clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breathe with bronchospasm and reported as primary impression by EMS personnel.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients reported as signs & symptoms of shortness of breath with bronchospasm as primary impression by EMS personnel <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset</b> <b>Numerator (N)</b>	<input type="checkbox"/> the number of patients treated by EMS personnel for shortness of breathe with bronchospasm who were discharged alive from hospital.	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients treated by EMS personnel <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> Prehospital provider Impression indicates Shortness of breath with bronchospasm <input type="checkbox"/> Patient discharged alive from hospital	<input type="checkbox"/> EMSA#

	<input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time period match numerator	
<b>Numerator Data Source</b>	<input type="checkbox"/> Hospital Discharge Records <input type="checkbox"/> OSHPD <input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level <input type="checkbox"/> by symptoms	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-respiratory etiologies, <input type="checkbox"/> respiratory etiologies where treatment not attempted by EMS personnel	
<b>References</b>	<ul style="list-style-type: none"> <li>Bledsoe B, Paramedic Emergency Care; 3<sup>rd</sup> Ed; Brady Publishing. 1997; 277-279</li> <li>Rossing, TH; A Controlled of the Use of Single vs. Combined Drug Therapy in the Treatment of Acute Episodes of Asthma. Am Rv Respir Dis 1981;123:190</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> Index # RE2A	<b><u>SHORTNESS OF BREATH -</u></b> <b><u>SIGNS &amp; SYMPTOMS OF FLUID OVERLOAD</u></b>	
<b>Measure</b>	<b><u>Oxygen: Frequency of Administration</u></b>	
<b>CORE INDICATOR REF</b> #RE2	<b>RESPIRATORY</b> TREATMENT PROTOCOL UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who exhibit signs & symptoms of shortness of breath with fluid overload who receive oxygen as part of treatment by EMS personnel in the Prehospital setting	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Compliance - frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Listing <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath with fluid overload and are treated by EMS personnel in Prehospital setting	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath with fluid overload <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient was treated by EMS personnel <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54  <input type="checkbox"/> EMSA #52

	match numerator	
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive oxygen administered by EMS personnel in Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients who receive oxygen <input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient was treated by EMS personnel <input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-respiratory etiologies, <input type="checkbox"/> respiratory etiologies where treatment not attempted by EMS personnel	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association; Textbook on Advanced Cardiac Life Support; (2000)</li> <li>Bledsoe B, Paramedic Emergency Care; 3<sup>rd</sup> Ed; Brady Publishing. 1997; 277-279</li> <li>Hudson LD. Causes of Adult Respiratory Distress Syndrome, Clin Chest Med 1982;3:1995</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # RE2B</b>	<b>SHORTNESS OF BREATH -</b> <b>SIGNS &amp; SYMPTOMS OF FLUID OVERLOAD</b>	
<b>Measure</b>	<b>Oxygen: Desired Effect Achieved</b>	
<b>CORE INDICATOR REF</b> <b>#RE2</b>	<b>RESPIRATORY</b> <b>TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from shortness of breath with signs and symptoms of pulmonary fluid overload who achieve a desired therapeutic effect from the administration of oxygen in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for SOB with fluid overload who receive oxygen as part of their treatment.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for shortness of breath or dyspnea. <input type="checkbox"/> Patients with signs & symptoms of pulmonary fluid overload <input type="checkbox"/> patients who receive oxygen by any modality or device. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset</b> <b>Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive desired effect when oxygen is administered in Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient's who are treated in prehospital setting <input type="checkbox"/> Desired effect is any change in patient status where there is full or partial relief of symptoms <input type="checkbox"/> desired effect is reported by EMS personnel through observation, assessment	<input type="checkbox"/> EMSA#

	or by verbal questioning of patient. <input type="checkbox"/> Subset of denominator <input type="checkbox"/> Time period query match denominator	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-cardiac etiologies, <input type="checkbox"/> cardiac etiologies where cardiac chest pain was not chief complaint <input type="checkbox"/> oxygen not administered <input type="checkbox"/> desired effect from oxygen administration not reported. <input type="checkbox"/> event not treated by EMS personnel	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association; Textbook on Advanced Cardiac Life Support; (2000)</li> <li>Bledsoe B, Paramedic Emergency Care; 3<sup>rd</sup> Ed; Brady Publishing. 1997; 277-279</li> <li>Hudson LD. Causes of Adult Respiratory Distress Syndrome, Clin Chest Med 1982;3:1995</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # RE2C</b>	<b>SHORTNESS OF BREATH -</b> <b>SIGNS &amp; SYMPTOMS OF FLUID OVERLOAD</b>	
<b>Measure</b>	<b>Nitroglycerine (NTG): Frequency of Administration</b>	
<b>CORE INDICATOR REF</b> <b>#RE2</b>	<b>RESPIRATORY</b> <b>TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	to measure % of patients who exhibit signs & symptoms of shortness of breath with fluid overload who receive a nitroglycerine (NTG) medication as part of treatment by EMS personnel in the Prehospital setting	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Compliance - frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Listing <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath with fluid overload and are treated by EMS personnel in Prehospital setting	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath with fluid overload <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient was treated by EMS personnel <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset</b> <b>Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive a nitroglycerine medication administered by EMS personnel in Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients who receive oxygen <input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient was treated by	<input type="checkbox"/> EMSA#

	<input type="checkbox"/> EMS personnel <input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time period match numerator	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-respiratory etiologies, <input type="checkbox"/> respiratory etiologies where treatment not attempted by EMS personnel	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association; Textbook on Advanced Cardiac Life Support; (2000)</li> <li>Bledsoe B, Paramedic Emergency Care; 3<sup>rd</sup> Ed; Brady Publishing. 1997; 277-279</li> <li>Hudson LD. Causes of Adult Respiratory Distress Syndrome, Clin Chest Med 1982;3:1995</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	





<b>CORE INDICATOR</b> <b>Index # RE2D</b>	<b><u>SHORTNESS OF BREATH -</u></b> <b><u>SIGNS &amp; SYMPTOMS OF FLUID OVERLOAD</u></b>	
<b>Measure</b>	<b><u>Nitroglycerine: Desired Effect Achieved</u></b>	
<b>CORE INDICATOR REF</b> <b>#RE2</b>	<b>RESPIRATORY</b> TREATMENT PROTOCOL UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who exhibit signs & symptoms of shortness of breath with fluid overload who receive a desired effect from the administration of nitroglycerine (NTG) medication as part of treatment by EMS personnel in the Prehospital	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for shortness of breathe with pulmonary fluid overload - which receive nitroglycerine as part of their treatment.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel. <input type="checkbox"/> Fluid overload refers to cases where in the judgment of the EMS provider, the patient is in respiratory distress due to pulmonary fluid or congestion in the lungs.	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #

	<input type="checkbox"/> patients who receive nitroglycerine by any modality or device. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive a desired therapeutic effect from the administration of nitroglycerine in the Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient's who are treated in prehospital setting <input type="checkbox"/> Desired effect is any change in patient status where there is full or partial relief of symptoms <input type="checkbox"/> desired effect is reported by EMS personnel through observation, assessment or by verbal questioning of patient. <input type="checkbox"/> Subset of denominator <input type="checkbox"/> Time period query match denominator	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-respiratory etiologies, <input type="checkbox"/> nitroglycerine not administered <input type="checkbox"/> desired effect from nitroglycerine administration not reported. <input type="checkbox"/> events not treated by EMS personnel	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association; Textbook on Advanced Cardiac Life Support; (2000)</li> <li>Bledsoe B, Paramedic Emergency Care; 3<sup>rd</sup> Ed; Brady Publishing. 1997; 277-279</li> <li>Hudson LD. Causes of Adult Respiratory Distress Syndrome, Clin Chest Med 1982;3:1995</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # RE2E</b>	<b><u>SHORTNESS OF BREATH -</u></b> <b><u>SIGNS &amp; SYMPTOMS OF FLUID OVERLOAD</u></b>	
<b>Measure</b>	<b><u>Morphine Sulfate (MS): Frequency of Administration</u></b>	
<b>CORE INDICATOR REF</b> <b>#RE2</b>	<b>RESPIRATORY</b> TREATMENT PROTOCOL UTILIZATION	
<b>Objective</b>	to measure % of patients who exhibit signs & symptoms of shortness of breath with fluid overload who receive a morphine sulfate medication as part of treatment by EMS personnel in the prehospital setting	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Compliance - frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Listing <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath with fluid overload and are treated by EMS personnel in Prehospital setting	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath with fluid overload <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient was treated by	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54

	<input type="checkbox"/> EMS personnel <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA #52
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive a morphine sulfate medication administered by EMS personnel in Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients who receive oxygen <input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient was treated with morphine sulfate by EMS personnel <input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-respiratory etiologies, <input type="checkbox"/> respiratory etiologies where treatment not attempted by EMS personnel	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association; Textbook on Advanced Cardiac Life Support; (2000)</li> <li>Bledsoe B, Paramedic Emergency Care; 3<sup>rd</sup> Ed; Brady Publishing. 1997; 277-279</li> <li>Hudson LD. Causes of Adult Respiratory Distress Syndrome, Clin Chest Med 1982;3:1995</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> Index # RE2F	<b>SHORTNESS OF BREATH -</b> <b>SIGNS &amp; SYMPTOMS OF FLUID OVERLOAD</b>	
<b>Measure</b>	Morphine Sulfate: Desired Effect Achieved	
<b>CORE INDICATOR REF</b> #RE2	RESPIRATORY TREATMENT PROTOCOL UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from shortness of breath with signs and symptoms of pulmonary fluid overload who achieve a desired therapeutic effect from the administration of morphine in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for shortness of breathe with fluid overload that receive morphine as part of their treatment.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for SOB with signs and symptoms of pulmonary fluid overload. <input type="checkbox"/> patients who receive morphine by any modality or device. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	EMS Medical Records	

<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who achieve a desired therapeutic effect after administration of morphine in the Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient's who are treated in prehospital setting <input type="checkbox"/> Desired effect is any change in patient status where there is full or partial relief of symptoms <input type="checkbox"/> desired effect is reported by EMS personnel through observation, assessment or by verbal questioning of patient. <input type="checkbox"/> Subset of Denominator <input type="checkbox"/> Time period query match denominator	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> morphine not administered <input type="checkbox"/> desired effect from morphine administration not reported. <input type="checkbox"/> event not treated by EMS personnel	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association; Textbook on Advanced Cardiac Life Support; (2000)</li> <li>Bledsoe B, Paramedic Emergency Care; 3<sup>rd</sup> Ed; Brady Publishing. 1997; 277-279</li> <li>Hudson LD. Causes of Adult Respiratory Distress Syndrome, Clin Chest Med 1982;3:1995</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	
<b>CORE INDICATOR</b>	<b><u>SHORTNESS OF BREATH -</u></b> <b><u>SIGNS &amp; SYMPTOMS OF FLUID OVERLOAD</u></b>	

<b>Index # RE2G</b>		
<b>Measure</b>	<b><u>Furosemide: Frequency Administration</u></b>	
<b>CORE INDICATOR REF #RE2</b>	<b>RESPIRATORY</b> TREATMENT PROTOCOL UTILIZATION	
<b>Objective</b>	to measure % of patients who exhibit signs & symptoms of shortness of breath with fluid overload who receive a Furosemide medication as part of treatment by EMS personnel in the Prehospital setting	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Compliance - frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Listing <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath with fluid overload and are treated by EMS personnel in Prehospital setting	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath with fluid overload <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient was treated by EMS personnel <input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54  <input type="checkbox"/> EMSA #52



<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who receive furosemide medication administered by EMS personnel in Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients who receive oxygen <input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient was treated with Furosemide by EMS personnel <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-respiratory etiologies, <input type="checkbox"/> respiratory etiologies where treatment not attempted by EMS personnel	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association; Textbook on Advanced Cardiac Life Support; (2000)</li> <li>Bledsoe B, Paramedic Emergency Care; 3<sup>rd</sup> Ed; Brady Publishing. 1997; 277-279</li> <li>Hudson LD. Causes of Adult Respiratory Distress Syndrome, Clin Chest Med 1982;3:1995</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # RE2H</b>	<b><u>SHORTNESS OF BREATH -</u></b> <b><u>SIGNS &amp; SYMPTOMS OF FLUID OVERLOAD</u></b>	
<b>Measure</b>	<b><u>Furosemide: Desired Effect Achieved</u></b>	
<b>CORE INDICATOR REF #RE2</b>	RESPIRATORY TREATMENT PROTOCOL UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients suffering from shortness of breath with signs and symptoms of pulmonary fluid overload who achieve a desired therapeutic effect from the administration of Furosemide in pre-hospital setting.	
<b>Classification</b>	<input type="checkbox"/> Medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List Chart <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of adult patients treated by EMS personnel for shortness of breathe with fluid overload that receive Furosemide as part of their treatment.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patient treated by EMS personnel for SOB with signs and symptoms of pulmonary fluid overload. <input type="checkbox"/> patients who receive Furosemide by any modality or device. <input type="checkbox"/> event was in prehospital setting	<input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #  <input type="checkbox"/> EMSA #

	<input type="checkbox"/> specified query time period	
<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients who achieve a desired therapeutic effect after administration of Furosemide in the prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient's who are treated in prehospital setting <input type="checkbox"/> Desired effect is any change in patient status where there is full or partial relief of symptoms <input type="checkbox"/> desired effect is reported by EMS personnel through observation, assessment or by verbal questioning of patient. <input type="checkbox"/> Subset of Denominator <input type="checkbox"/> Time period query match denominator	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times	<input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> furosemide not administered <input type="checkbox"/> furosemide administration not reported. <input type="checkbox"/> event not treated by EMS personnel	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association; Textbook on Advanced Cardiac Life Support; (2000)</li> <li>Bledsoe B, Paramedic Emergency Care; 3<sup>rd</sup> Ed; Brady Publishing. 1997; 277-279</li> <li>Hudson LD. Causes of Adult Respiratory Distress Syndrome, Clin Chest Med 1982;3:1995</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # RE2I</b>	<b><u>SHORTNESS OF BREATH -</u></b> <b><u>SIGNS &amp; SYMPTOMS OF FLUID OVERLOAD</u></b>	
<b>Measure</b>	<b><u>Decrease or Relief of Symptoms</u></b>	
<b>CORE INDICATOR REF</b> <b>#RE1</b>	<b>RESPIRATORY</b> TREATMENT PROTOCOL UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients who exhibit signs & symptoms of shortness of breath with fluid overload that show a decrease or relief of symptoms after treatment by EMS personnel in the prehospital setting	
<b>Classification</b>	<input type="checkbox"/> Medical care - Clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Compliance - frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath with fluid overload and are treated by EMS personnel in Prehospital setting	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath with fluid overload <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient was treated by EMS personnel <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54  <input type="checkbox"/> EMSA #52

<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients that show decrease or relief of symptoms after treatment by EMS personnel in Prehospital setting	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients who receive oxygen <input type="checkbox"/> patients who show decrease or relief of symptoms after treatment <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> patient was treated by EMS personnel <input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-respiratory etiologies, <input type="checkbox"/> respiratory etiologies where treatment not attempted by EMS personnel	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association; Textbook on Advanced Cardiac Life Support; (2000)</li> <li>Bledsoe B, Paramedic Emergency Care; 3<sup>rd</sup> Ed; Brady Publishing. 1997; 277-279</li> <li>Hudson LD. Causes of Adult Respiratory Distress Syndrome, Clin Chest Med 1982;3:1995</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project  <input type="checkbox"/>	
<b>CORE INDICATOR Index # RE2J</b>	<b><u>SHORTNESS OF BREATH -</u></b> <b><u>SIGNS &amp; SYMPTOMS OF FLUID OVERLOAD</u></b>	

Measure	Provider Impression Match ED Diagnosis	
CORE INDICATOR REF #RE1	RESPIRATORY TREATMENT PROTOCOL UTILIZATION	
Objective	<input type="checkbox"/> to measure % of patients whose primary clinical impression of shortness of breath with fluid overload as assessed by EMS personnel match emergency department diagnosis.	
Classification	<input type="checkbox"/> Medical care - Clinical	
Type of Measure	<input type="checkbox"/> Outcome	
Domain of Performance	<input type="checkbox"/> Compliance - frequency	
Indicator Reporting Value	<input type="checkbox"/> %	
Display Format	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
Frequency of Display	<input type="checkbox"/> Monthly x 12	
Measures of Central Tendency	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
Trending Analysis	<input type="checkbox"/> NA	
Minimum Data Values	<input type="checkbox"/> 30 values per measure	
Sampling	<input type="checkbox"/> Periodic - Rate	
Aggregation	<input type="checkbox"/> Yes	
Blinded	<input type="checkbox"/> Yes	
Beta Testing	<input type="checkbox"/> None to Date	
Population Denominator (D)	<input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath with fluid overload and reported as primary impression by EMS personnel.	
Denominator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients reported as signs & symptoms of shortness of breath with fluid overload as primary impression by EMS personnel <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54  <input type="checkbox"/> EMSA #52
Denominator Data Source	EMS Medical Records	
Population Subset Numerator (N)	<input type="checkbox"/> the number of patients treated by EMS personnel where ED diagnosis indicates shortness of breath with fluid overload	

Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients treated by EMS personnel <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> ED diagnosis indicates Shortness of breath with fluid overload or equivalent description. <input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA#
Numerator Data Source	<input type="checkbox"/> EMS Medical Records	
Description of Indicator Formula	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
Indicator Formula Numeric Expression	<input type="checkbox"/> $N / D = \%$	
Linkage	Linkage Options	EMSA Data Elements
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
Stratification	Options	EMSA Data Elements
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level <input type="checkbox"/> by symptoms	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8
Indicator Exclusion Criteria	<input type="checkbox"/> non-respiratory etiologies, <input type="checkbox"/> respiratory etiologies where treatment not attempted by EMS personnel	
References	<ul style="list-style-type: none"> <li>American Heart Association; Textbook on Advanced Cardiac Life Support; (2000)</li> <li>Bledsoe B, Paramedic Emergency Care; 3<sup>rd</sup> Ed; Brady Publishing. 1997; 277-279</li> <li>Hudson LD. Causes of Adult Respiratory Distress Syndrome, Clin Chest Med 1982;3:1995</li> </ul>	
Source	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # RE2K</b>	<b><u>SHORTNESS OF BREATH -</u></b> <b><u>SIGNS &amp; SYMPTOMS OFFLUID OVERLOAD</u></b>	
<b>Measure</b>	<b><u>Survival to Hospital Discharge</u></b>	
<b>CORE INDICATOR REF</b> <b>#RE1</b>	<b>RESPIRATORY</b> TREATMENT PROTOCOL UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure % of patients whose primary clinical impression of shortness of breath with fluid overload as assessed by EMS personnel survive to hospital discharge.	
<b>Classification</b>	<input type="checkbox"/> Medical care - Clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Effectiveness	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> patients who exhibit signs & symptoms of shortness of breath with fluid overload and reported as primary impression by EMS personnel.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients reported as signs & symptoms of shortness of breath with bronchospasm as primary impression by EMS personnel <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54  <input type="checkbox"/> EMSA #52



<b>Denominator Data Source</b>	EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients treated by EMS personnel for shortness of breathe with fluid overload who were discharged alive from hospital.	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> patients treated by EMS personnel <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> Prehospital provider Impression indicates Shortness of breath with fluid overload <input type="checkbox"/> Patient discharged alive from hospital <input type="checkbox"/> Subset of denominator <input type="checkbox"/> Specified query time period match numerator	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> Hospital Discharge Records <input type="checkbox"/> OSHPD <input type="checkbox"/> EMS Medical Records	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> Numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level <input type="checkbox"/> by symptoms	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-respiratory etiologies, <input type="checkbox"/> respiratory etiologies where treatment not attempted by EMS personnel	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association; Textbook on Advanced Cardiac Life Support; (2000)</li> <li>Bledsoe B, Paramedic Emergency Care; 3<sup>rd</sup> Ed; Brady Publishing. 1997; 277-279</li> <li>Hudson LD. Causes of Adult Respiratory Distress Syndrome, Clin Chest Med 1982;3:1995</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> Index # RF1A	<b><u>RECEIVING FACILITIES</u></b>	
<b>Measure</b>	<b><u>Inter-facility Transfers</u></b>	
<b>CORE INDICATOR REF</b> #RF1	<b>SYSTEM OPERATIONS</b> <b>PATIENT DESTINATION PROFILES</b>	
<b>Objective</b>	<input type="checkbox"/> to measure the % of patient transfers initiate by receiving facilities	
<b>Classification</b>	<input type="checkbox"/> System Operations – Receiving Facilities	
<b>Type of Measure</b>	<input type="checkbox"/> outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume - Frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of EMS patients transported to and accepted by receiving facility	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient treated by EMS personnel <input type="checkbox"/> patient was transported to and accepted by receiving facility <input type="checkbox"/> specified query time match numerator	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54 <input type="checkbox"/>
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital Discharge Records <input type="checkbox"/> OSHPD	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients transferred out of receiving facility	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>

	<input type="checkbox"/> patient treated by EMS personnel <input type="checkbox"/> patient was transported to and accepted by receiving facility <input type="checkbox"/> patients transferred out of receiving facility <input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time match denominator	<input type="checkbox"/> discharge status (TBD)
<b>Numerator Data Source</b>	<input type="checkbox"/> hospital discharge records <input type="checkbox"/> EMS medical records <input type="checkbox"/> OSHPD discharge record	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> patients not transported to or accepted by receiving facility <input type="checkbox"/> patients not treated or transported by EMS personnel	
<b>References</b>	<ul style="list-style-type: none"> <li>California Code of Regulations; Title 22; Social Security Division 9, Prehospital EMS, 1991</li> <li>Kuehl, A; Prehospital Systems – Medical Oversight , National Assn of EMS Physicians. Mosby 2<sup>nd</sup> Ed. 1994</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> Index # RF1B	<b>RECEIVING FACILITIES</b>	
<b>Measure</b>	<b>Patient-Transport Diversions</b>	
<b>CORE INDICATOR REF</b> #RF1	<b>SYSTEM OPERATIONS</b> <b>PATIENT DESTINATION PROFILES</b>	
<b>Objective</b>	<input type="checkbox"/> to measure the % of EMS patients diverted by receiving facilities	
<b>Classification</b>	<input type="checkbox"/> System Operations – Receiving Facilities	
<b>Type of Measure</b>	<input type="checkbox"/> outcome	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume - Frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of EMS patients where transportation to receiving facilities was initiated.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient treated by EMS personnel <input type="checkbox"/> patient transport was initiated in prehospital setting <input type="checkbox"/> specified query time match numerator	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54 <input type="checkbox"/>
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital Discharge Records <input type="checkbox"/> OSHPD	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of EMS patients where transportation to receiving facilities was diverted to another receiving facility	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>

	<input type="checkbox"/> patient treated by EMS personnel <input type="checkbox"/> patient was diverted by receiving facility to another receiving facility <input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time match denominator	<input type="checkbox"/> discharge status (TBD)
<b>Numerator Data Source</b>	<input type="checkbox"/> hospital discharge records <input type="checkbox"/> EMS medical records <input type="checkbox"/> OSHPD discharge record	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> patients not transported to or accepted by receiving facility <input type="checkbox"/> patients not treated or transported by EMS personnel	
<b>References</b>	<ul style="list-style-type: none"> <li>California Code of Regulations; Title 22; Social Security Division 9, Prehospital EMS, 1991</li> <li>Kuehl, A; Prehospital Systems – Medical Oversight , National Assn of EMS Physicians. Mosby 2<sup>nd</sup> Ed. 1994</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> Index # RF1C	<b>RECEIVING FACILITIES</b>	
<b>Measure</b>	<b>Lapse Transport Time - Patient Diversion</b>	
<b>CORE INDICATOR REF</b> #RF1	<b>SYSTEM OPERATIONS</b> <b>PATIENT DESTINATION PROFILES</b>	
<b>Objective</b>	<input type="checkbox"/> to measure the average lapse time of EMS patient transportation when a patient is diverted from a receiving facility to another receiving facility.	
<b>Classification</b>	<input type="checkbox"/> System Operations – Receiving Facilities	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume - Frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - Yes <input type="checkbox"/> variance - Yes <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of EMS patients where transportation to receiving facilities was diverted to another receiving facility.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient treated by EMS personnel <input type="checkbox"/> patient diversion was initiated in prehospital setting <input type="checkbox"/> specified query time match numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital Discharge Records <input type="checkbox"/> OSHPD	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the cumulative lapse transport times of EMS patients where transportation to receiving facilities was diverted to another receiving facility	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>

	<input type="checkbox"/> patient treated by EMS personnel <input type="checkbox"/> transport time from beginning of enroute to arrival at receiving facility <input type="checkbox"/> patient was diverted by receiving facility to another receiving facility <input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time match denominator	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> hospital discharge records <input type="checkbox"/> EMS medical records <input type="checkbox"/> OSHPD discharge record	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> patients not transported to or accepted by receiving facility <input type="checkbox"/> patients not treated or transported by EMS personnel	
<b>References</b>	<ul style="list-style-type: none"> <li>California Code of Regulations; Title 22; Social Security Division 9, Prehospital EMS, 1991</li> <li>Kuehl, A; Prehospital Systems – Medical Oversight , National Assn of EMS Physicians. Mosby 2<sup>nd</sup> Ed. 1994</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> Index # RF1D	<b>RECEIVING FACILITIES</b>	
<b>Measure</b>	<b>% Interfacility Transfers due to Costs</b>	
<b>CORE INDICATOR REF</b> #RF1	<b>SYSTEM OPERATIONS</b> <b>PATIENT DESTINATION PROFILES</b>	
<b>Objective</b>	<input type="checkbox"/> to measure the average number of patients transferred due to financial reasons.	
<b>Classification</b>	<input type="checkbox"/> System Operations – Receiving Facilities	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume - Frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - Yes <input type="checkbox"/> variance - Yes <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of EMS patients transferred from receiving facilities.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient treated by EMS personnel <input type="checkbox"/> patient transferred from one facility to another <input type="checkbox"/> specified query time match numerator	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54 <input type="checkbox"/>
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital Discharge Records <input type="checkbox"/> OSHPD	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> patients transferred for unknown financial reasons	



Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient treated by EMS personnel <input type="checkbox"/> patient transferred from one facility to another for unknown financial reasons <input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time match numerator specified query time match denominator	<input type="checkbox"/> EMSA#
Numerator Data Source	<input type="checkbox"/> hospital discharge records <input type="checkbox"/> EMS medical records <input type="checkbox"/> OSHPD discharge record	
Description of Indicator Formula	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
Indicator Formula Numeric Expression	<input type="checkbox"/> $N / D = \%$	
Linkage	Linkage Options	EMSA Data Elements
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
Stratification	Options	EMSA Data Elements
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20
Indicator Exclusion Criteria	<input type="checkbox"/> patients not transported to or accepted by receiving facility <input type="checkbox"/> patients not treated or transported by EMS personnel	
References	<ul style="list-style-type: none"> <li>California Code of Regulations; Title 22; Social Security Division 9, Prehospital EMS, 1991</li> <li>Kuehl, A; Prehospital Systems – Medical Oversight , National Assn of EMS Physicians. Mosby 2<sup>nd</sup> Ed. 1994</li> </ul>	
Source	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> Index # RF1E	<b><u>RECEIVING FACILITIES</u></b>	
<b>Measure</b>	<b><u>% Interfacility Transfers due to Higher Level Care</u></b>	
<b>CORE INDICATOR REF</b> #RF1	<b>SYSTEM OPERATIONS</b> <b>PATIENT DESTINATION PROFILES</b>	
<b>Objective</b>	<input type="checkbox"/> to measure the average number of patients transferred due to need for higher level of care.	
<b>Classification</b>	<input type="checkbox"/> System Operations – Receiving Facilities	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume - Frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - Yes <input type="checkbox"/> variance - Yes <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of EMS patients transferred from receiving facilities.	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient treated by EMS personnel <input type="checkbox"/> patient transferred from one facility to another <input type="checkbox"/> specified query time match numerator	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54 <input type="checkbox"/>
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital Discharge Records <input type="checkbox"/> OSHPD	
<b>Population Subset</b>	<input type="checkbox"/> patients transferred for need of a higher level of medical care	

Numerator (N)		
Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient treated by EMS personnel <input type="checkbox"/> patient transferred from one facility to another for higher level of care <input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time match numerator specified query time match denominator	<input type="checkbox"/> EMSA#
Numerator Data Source	<input type="checkbox"/> hospital discharge records <input type="checkbox"/> EMS medical records <input type="checkbox"/> OSHPD discharge record	
Description of Indicator Formula	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
Indicator Formula Numeric Expression	<input type="checkbox"/> $N / D = \%$	
Linkage	Linkage Options	EMSA Data Elements
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
Stratification	Options	EMSA Data Elements
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20
Indicator Exclusion Criteria	<input type="checkbox"/> patients not transported to or accepted by receiving facility <input type="checkbox"/> patients not treated or transported by EMS personnel	
References	<ul style="list-style-type: none"> <li>California Code of Regulations; Title 22; Social Security Division 9, Prehospital EMS, 1991</li> <li>Kuehl, A; Prehospital Systems – Medical Oversight , National Assn of EMS Physicians. Mosby 2<sup>nd</sup> Ed. 1994</li> </ul>	
Source	<input type="checkbox"/> California EMSA Vision Project	

CORE INDICATOR Index # RS1A	RESPONSE	
Measure	Queue Time of Responding Unit	
CORE INDICATOR REF #RS1	SYSTEM OPERATIONS RESPONSE	
Objective	<input type="checkbox"/> to measure average lapse Queue time of responding EMS units	
Classification	<input type="checkbox"/> system ops - response	
Type of Measure	<input type="checkbox"/> process	
Domain of Performance	<input type="checkbox"/> efficiency	
Indicator Reporting Value	<input type="checkbox"/> %	
Display Format	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
Frequency of Display	<input type="checkbox"/> Monthly x 12	
Measures of Central Tendency	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
Trending Analysis	<input type="checkbox"/> NA	
Minimum Data Values	<input type="checkbox"/> 30 values per measure	
Sampling	<input type="checkbox"/> Periodic - Rate	
Aggregation	<input type="checkbox"/> Yes	
Blinded	<input type="checkbox"/> Yes	
Beta Testing	<input type="checkbox"/> None to Date	
Population Denominator (D)	<input type="checkbox"/> the number of EMS responses	
Denominator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> EMS unit dispatched <input type="checkbox"/> EMS unit acknowledged <input type="checkbox"/> EMS unit responds enroute <input type="checkbox"/> Queue time from call effect (notification from dispatch) to enroute (Wheels rolling) <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54

		<input type="checkbox"/>
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> PSAP <input type="checkbox"/> EMS Dispatch Agencies	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the cumulative time of all lapsed Queue times for all EMS events	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> lapse Queue time from call effect (notification from dispatch) to enroute (wheels rolling) <input type="checkbox"/> subset of denominator <input type="checkbox"/> specified query time period match denominator	<input type="checkbox"/> discharge status (TBD)
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> PSAP <input type="checkbox"/> EMS Dispatch Agencies	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) equals average time in mins + secs	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \text{ave time}$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Provider <input type="checkbox"/> PSAP <input type="checkbox"/> Time of call	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by provider <input type="checkbox"/> by PSAP <input type="checkbox"/> by time of call <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by type of call	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Queue times where units did not go enroute	
<b>References</b>	<ul style="list-style-type: none"> <li>• Cadigan R, Predicting Demand for Emergency Ambulance Service, Ann of Emerg Med; 18:618-621, 1989</li> <li>• Kuehl, A; Prehospital Systems – Medical Oversight , National Assn of EMS Physicians. Mosby 2<sup>nd</sup> Ed. 1994</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # RS1B</b>	<b>RESPONSE - METRO</b>	
<b>Measure</b>	<b>% Roll Time &gt; 10 Mins</b>	
<b>CORE INDICATOR REF</b> <b>#RS1</b>	<b>SYSTEM OPERATIONS</b> RESPONSE	
<b>Objective</b>	<input type="checkbox"/> to measure the % of times where EMS unit rolls times are greater than ten (10) mins	
<b>Classification</b>	<input type="checkbox"/> system ops - response	
<b>Type of Measure</b>	<input type="checkbox"/> process	
<b>Domain of Performance</b>	<input type="checkbox"/> efficiency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of EMS responses	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> total number of EMS unit enroute response <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> PSAP <input type="checkbox"/> EMS Dispatch Agencies	
<b>Population Subset</b>	<input type="checkbox"/> the number of calls where roll time is greater than ten (10)	

<b>Numerator (N)</b>	minutes	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Total of all lapse roll timer from enroute (wheels rolling) to on scene (wheels stop) <input type="checkbox"/> subset of denominator <input type="checkbox"/> specified query time period match denominator	<input type="checkbox"/> EMSA#
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> PSAP <input type="checkbox"/> EMS Dispatch Agencies	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) equals percentage over ten (10) mins	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Provider <input type="checkbox"/> PSAP <input type="checkbox"/> Time of call	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by provider <input type="checkbox"/> by PSAP <input type="checkbox"/> by time of call <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by type of call	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Roll times where units not responding to official EMS dispatch <input type="checkbox"/> Units not responding with lights and sirens.	
<b>References</b>	<ul style="list-style-type: none"> <li>• Cadigan R, Predicting Demand for Emergency Ambulance Service, Ann of Emerg Med; 18:618-621, 1989</li> <li>• Kuehl, A; Prehospital Systems – Medical Oversight , National Assn of EMS Physicians. Mosby 2<sup>nd</sup> Ed. 1994</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b>	<b><u>RESPONSE - RURAL</u></b>
<b>Index # RS1B</b>	
<b>Measure</b>	<b><u>% Roll Time &gt; 20 Mins</u></b>
<b>CORE INDICATOR REF</b>	<b>SYSTEM OPERATIONS</b>
<b>#RS1</b>	RESPONSE

<b>Objective</b>	<input type="checkbox"/> to measure the % of times where EMS unit rolls times are greater than twenty (20) mins	
<b>Classification</b>	<input type="checkbox"/> system ops - response	
<b>Type of Measure</b>	<input type="checkbox"/> process	
<b>Domain of Performance</b>	<input type="checkbox"/> efficiency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of EMS responses	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> total number of EMS unit enroute responses <input type="checkbox"/> specified query time period match numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> PSAP <input type="checkbox"/> EMS Dispatch Agencies	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of calls where roll time is greater than twenty (20) minutes	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Total of all lapse time from enroute (wheels rolling) to on scene (wheels stop) <input type="checkbox"/> subset of denominator <input type="checkbox"/> specified query time period match denominator	<input type="checkbox"/> EMSA#



<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> PSAP <input type="checkbox"/> EMS Dispatch Agencies	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) equals percentage over twenty (20) mins	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Provider <input type="checkbox"/> PSAP <input type="checkbox"/> Time of call	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by provider <input type="checkbox"/> by PSAP <input type="checkbox"/> by time of call <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by type of call	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Roll times where units not responding to official EMS dispatch <input type="checkbox"/> Units not responding with lights and sirens.	
<b>References</b>	<ul style="list-style-type: none"> <li>• Cadigan R, Predicting Demand for Emergency Ambulance Service, Ann of Emerg Med; 18:618-621, 1989</li> <li>• Kuehl, A; Prehospital Systems – Medical Oversight , National Assn of EMS Physicians. Mosby 2<sup>nd</sup> Ed. 1994</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # SK1A</b>	<b>ADVANCED PROVIDER SKILLS</b>	
<b>Measure</b>	<b>% Insertion rate</b> <b>Endotracheal Intubation - Adult</b>	
<b>CORE INDICATOR REF</b> <b>#SK1</b>	CLINICAL SKILLS UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure % insertion rate per total attempts at oral endotracheal intubation for EMS personnel.	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Psychomotor skills	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Table <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of attempt s at insertion of a endotracheal tube - Adult	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> Attempt is the laryngoscopy and passing of a ET tube beyond the teeth with intent of placing an endotracheal tube <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period same period as numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients whom an endotracheal tube is inserted.	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> insertion is passing of an ET tube into the trachea with confirmation by presence of bilateral breath sounds in lungs on auscultation and absence of air in stomach on auscultation. <input type="checkbox"/> event was in prehospital setting	<input type="checkbox"/> discharge status (TBD)

	<input type="checkbox"/> subset of denominator <input type="checkbox"/> specified query time period same period as denominator	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> ED Chart	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> nasal intubations <input type="checkbox"/> pediatric intubations	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association, Textbook on Advanced Cardiac Life Support, (2000)</li> <li>California Code of Regulations Title 22, Social Security Division 9, Prehospital EMS 1991</li> <li>O'Connor, R MD; ET Field experience; Paramedics to Proficiency, Prehospital &amp; Disaster Medicine: 1995, Vol 10 No 4, (Sup S23)</li> <li>Pediatric Airway Management Study. 1997 LA County EMS Services</li> <li>Skelton MB, McSwain NE. A study of Cognitive and Technical Skills Deterioration Among Trained paramedics. JACEP 1997;6: 436-438</li> <li>Stratton S., Prospective Study of Mannequin and Human Subjects for Endotracheal Intubation training for Paramedics, Ann of Emerg Me; 1991, Vol 20 p 1314-1318</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # SK1B</b>	<b><u>ADVANCED PROVIDER SKILLS</u></b>	
<b>Measure</b>	<b><u>Frequency of Skill Performance</u></b> <b><u>Endotracheal Intubation - Adult</u></b>	
<b>CORE INDICATOR REF</b> <b>#SK1</b>	CLINICAL SKILLS UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure frequency of oral ET performed per year per licensed EMT-P personnel.	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> Number per licensed EMT-P	
<b>Display Format</b>	<input type="checkbox"/> Table <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of licensed EMT-P personnel in California	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> EMT-Paramedics <input type="checkbox"/> Currently licensed in state California <input type="checkbox"/> specified query time period same period as numerator	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> EMSA	

<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of oral ET insertions	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> insertion is passing of an ET tube into the trachea with confirmation by presence of bilateral breath sounds in lungs on auscultation and absence of air in stomach on auscultation. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> subset of denominator <input type="checkbox"/> specified query time period same period as denominator	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> ED Chart	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) equals number of insertions per licensed personnel	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \text{Number of ET insertions per licensed personnel}$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by incident type <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #3820
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> nasal intubations <input type="checkbox"/> pediatric intubations	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association, Textbook on Advanced Cardiac Life Support, (2000)</li> <li>California Code of Regulations Title 22, Social Security Division 9, Prehospital EMS 1991</li> <li>O'Connor, R MD; ET Field experience; Paramedics to Proficiency, Prehospital &amp; Disaster Medicine: 1995, Vol 10 No 4, (Sup S23)</li> <li>Pediatric Airway Management Study. 1997 LA County EMS Services</li> <li>Skelton MB, McSwain NE. A study of Cognitive and Technical Skills Deterioration Among Trained paramedics. JACEP 1997;6: 436-438</li> <li>Stratton S., Prospective Study of Mannequin and Human Subjects for Endotracheal Intubation training for Paramedics, Ann of Emerg Me; 1991, Vol 20 p 1314-1318</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	
<b>CORE INDICATOR</b>	<b><u>ADVANCED PROVIDER SKILLS</u></b>	

<b>Index # SK1C</b>		
<b>Measure</b>	<b>% Insertion Rate</b>	
	<b>Nasal Endotracheal Intubation - Adult</b>	
<b>CORE INDICATOR REF #SK1</b>	CLINICAL SKILLS UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure % insertion rate per total attempts at nasal endotracheal intubation for EMS personnel.	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Psychomotor skills	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Table <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of attempt s at nasal insertion of a endotracheal tube - Adult	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> Attempt is the passing of a ET tube beyond the nares with intent of placing an endotracheal tube <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> subset of denominator <input type="checkbox"/> specified query time period same period as numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients whom a nasal endotracheal tube is inserted.	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> insertion is passing of an ET tube into the trachea with confirmation by presence of bilateral breath sounds in lungs on auscultation and absence of air in stomach on auscultation. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> subset of denominator	<input type="checkbox"/> discharge status (TBD)

	<input type="checkbox"/> specified query time period same period as denominator	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> ED Chart	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> oral intubations <input type="checkbox"/> pediatric intubations	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association, Textbook on Advanced Cardiac Life Support, (2000)</li> <li>California Code of Regulations Title 22, Social Security Division 9, Prehospital EMS 1991</li> <li>O'Connor, R MD; ET Field experience; Paramedics to Proficiency, Prehospital &amp; Disaster Medicine: 1995, Vol 10 No 4, (Sup S23)</li> <li>Pediatric Airway Management Study. 1997 LA County EMS Services</li> <li>Skelton MB, McSwain NE. A study of Cognitive and Technical Skills Deterioration Among Trained paramedics. JACEP 1997;6: 436-438</li> <li>Stratton S., Prospective Study of Mannequin and Human Subjects for Endotracheal Intubation training for Paramedics, Ann of Emerg Me; 1991, Vol 20 p 1314-1318</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # SK1D</b>	<b><u>ADVANCED PROVIDER SKILLS</u></b>	
<b>Measure</b>	<b><u>Frequency of Skill Performance</u></b> <b><u>Nasal Endotracheal Intubation - Adult</u></b>	
<b>CORE INDICATOR REF #SK1</b>	CLINICAL SKILLS UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure frequency of nasal ET performed per year per licensed EMT-P personnel.	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> Number per licensed EMT-P	
<b>Display Format</b>	<input type="checkbox"/> Table <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of licensed EMT-P personnel in California	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> EMT-Paramedics <input type="checkbox"/> Currently licensed in state California <input type="checkbox"/> specified query time period same period as numerator	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> EMSA	



<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of nasal ET insertions	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> insertion is passing of a nasal ET tube into the trachea with confirmation by presence of bilateral breath sounds in lungs on auscultation and absence of air in stomach on auscultation. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> subset of denominator <input type="checkbox"/> specified query time period same period as denominator	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> ED Chart	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) equals number of nasal ET insertions per licensed personnel	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \text{Number of nasal ET insertions per licensed personnel}$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by incident type <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #3820
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> oral intubations <input type="checkbox"/> pediatric intubations	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association, Textbook on Advanced Cardiac Life Support, (2000)</li> <li>California Code of Regulations Title 22, Social Security Division 9, Prehospital EMS 1991</li> <li>O'Connor, R MD; ET Field experience; Paramedics to Proficiency, Prehospital &amp; Disaster Medicine: 1995, Vol 10 No 4, (Sup S23)</li> <li>Pediatric Airway Management Study. 1997 LA County EMS Services</li> <li>Skelton MB, McSwain NE. A study of Cognitive and Technical Skills Deterioration Among Trained paramedics. JACEP 1997;6: 436-438</li> <li>Stratton S., Prospective Study of Mannequin and Human Subjects for Endotracheal Intubation training for Paramedics, Ann of Emerg Me; 1991, Vol 20 p 1314-1318</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # SK1E</b>	<b>ADVANCED PROVIDER SKILLS</b>	
<b>Measure</b>	% Insertion Rate <b>Pediatric Endotracheal Intubation</b>	
<b>CORE INDICATOR REF #SK1</b>	CLINICAL SKILLS UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure % insertion rate per total attempts at pediatric endotracheal intubation for EMS personnel.	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Psychomotor skills	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Table <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of attempt s at pediatric endotracheal intubation	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has not reached age 15 <input type="checkbox"/> Attempt is laryngoscopy and the passing of a ET tube beyond the teeth or upper soft palate with intent of placing an endotracheal tube <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period same period as numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients whom a pediatric endotracheal tube is inserted.	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has not reached age 15 <input type="checkbox"/> insertion is passing of an ET tube into the trachea with confirmation by presence of bilateral breath sounds in lungs on auscultation and absence of air in stomach on	<input type="checkbox"/> discharge status (TBD)

	auscultation. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> subset of denominator <input type="checkbox"/> specified query time period same period as denominator	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> ED Chart	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> adult oral intubations <input type="checkbox"/> nasal intubations	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association, Textbook on Advanced Cardiac Life Support, (2000)</li> <li>California Code of Regulations Title 22, Social Security Division 9, Prehospital EMS 1991</li> <li>O'Connor, R MD; ET Field experience; Paramedics to Proficiency, Prehospital &amp; Disaster Medicine: 1995, Vol 10 No 4, (Sup S23)</li> <li>Pediatric Airway Management Study. 1997 LA County EMS Services</li> <li>Skelton MB, McSwain NE. A study of Cognitive and Technical Skills Deterioration Among Trained paramedics. JACEP 1997;6: 436-438</li> <li>Stratton S., Prospective Study of Mannequin and Human Subjects for Endotracheal Intubation training for Paramedics, Ann of Emerg Me; 1991, Vol 20 p 1314-1318</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # SK1F</b>	<b><u>ADVANCED PROVIDER SKILLS</u></b>	
<b>Measure</b>	<b><u>Frequency of Skill Performance</u></b> <b><u>Pediatric Endotracheal Intubation</u></b>	
<b>CORE INDICATOR REF</b> <b>#SK1</b>	CLINICAL SKILLS UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure frequency of pediatric ET performed per year per licensed EMT-P personnel.	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> Number per licensed EMT-P	
<b>Display Format</b>	<input type="checkbox"/> Table <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of licensed EMT-P personnel in California	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> EMT-Paramedics <input type="checkbox"/> Currently licensed in state California <input type="checkbox"/> specified query time period same period as numerator	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> EMSA	
<b>Population Subset</b>	<input type="checkbox"/> the number of pediatric ET insertions	

Numerator (N)		
Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient has not reached age 15 <input type="checkbox"/> insertion is passing of a nasal ET tube into the trachea with confirmation by presence of bilateral breath sounds in lungs on auscultation and absence of air in stomach on auscultation. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> subset of denominator <input type="checkbox"/> specified query time period same period as denominator	
Numerator Data Source	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> ED Chart	
Description of Indicator Formula	<input type="checkbox"/> numerator value (N) divided by denominator value (D) equals number of pediatric ET insertions per licensed personnel	
Indicator Formula Numeric Expression	<input type="checkbox"/> $N / D = \text{Number of pediatric ET insertions per licensed personnel}$	
Linkage	Linkage Options	EMSA Data Elements
	<input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35
Stratification	Options	EMSA Data Elements
	<input type="checkbox"/> by incident type <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #3820
Indicator Exclusion Criteria	<input type="checkbox"/> adult oral intubations <input type="checkbox"/> nasal intubations	
References	<ul style="list-style-type: none"> <li>American Heart Association, Textbook on Advanced Cardiac Life Support, (2000)</li> <li>California Code of Regulations Title 22, Social Security Division 9, Prehospital EMS 1991</li> <li>O'Connor, R MD; ET Field experience; Paramedics to Proficiency, Prehospital &amp; Disaster Medicine: 1995, Vol 10 No 4, (Sup S23)</li> <li>Pediatric Airway Management Study. 1997 LA County EMS Services</li> <li>Skelton MB, McSwain NE. A study of Cognitive and Technical Skills Deterioration Among Trained paramedics. JACEP 1997;6: 436-438</li> <li>Stratton S., Prospective Study of Mannequin and Human Subjects for Endotracheal Intubation training for Paramedics, Ann of Emerg Me; 1991, Vol 20 p 1314-1318</li> </ul>	
Source	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> Index # SK1G	<b>ADVANCED PROVIDER SKILLS</b>	
<b>Measure</b>	% Insertion Rate <b>Pediatric Peripheral IV Access</b>	
<b>CORE INDICATOR REF</b> #SK1	CLINICAL SKILLS UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure % insertion rate per total attempts at pediatric peripheral IV for EMS personnel.	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Psychomotor skills	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Table <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of attempt s at pediatric peripheral IV	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has not reached age 15 <input type="checkbox"/> Attempt is breaking the skin with intent to insert peripheral IV access <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period same period as numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients whom a pediatric peripheral IV was inserted.	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has not reached age 15 <input type="checkbox"/> insertion is evidence of access to venous system and free flow of IV solution into venous system. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> subset of denominator <input type="checkbox"/> specified query time period same period as	<input type="checkbox"/> discharge status (TBD)

	denominator	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> ED Chart	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> patients age 15 or older	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association, Textbook on Advanced Cardiac Life Support, (2000)</li> <li>California Code of Regulations Title 22, Social Security Division 9, Prehospital EMS 1991</li> <li>O'Connor, R MD; ET Field experience; Paramedics to Proficiency, Prehospital &amp; Disaster Medicine: 1995, Vol 10 No 4, (Sup S23)</li> <li>Pediatric Airway Management Study. 1997 LA County EMS Services</li> <li>Skelton MB, McSwain NE. A study of Cognitive and Technical Skills Deterioration Among Trained paramedics. JACEP 1997;6: 436-438</li> <li>Stratton S., Prospective Study of Mannequin and Human Subjects for Endotracheal Intubation training for Paramedics, Ann of Emerg Me; 1991, Vol 20 p 1314-1318</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> Index # SK1H	<b><u>ADVANCED PROVIDER SKILLS</u></b>	
<b>Measure</b>	<b><u>Frequency of Skill Performance</u></b> <b><u>Pediatric Peripheral IV Access</u></b>	
<b>CORE INDICATOR REF #SK1</b>	CLINICAL SKILLS UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure frequency of pediatric IV Access is performed per year per licensed EMT-P personnel.	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> Number per licensed EMT-P	
<b>Display Format</b>	<input type="checkbox"/> Table <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of licensed EMT-P personnel in California	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> EMT-Paramedics <input type="checkbox"/> Currently licensed in state California <input type="checkbox"/> specified query time period same period as numerator	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> EMSA	
<b>Population Subset</b>	<input type="checkbox"/> the number of pediatric peripheral IV insertions	



Numerator (N)		
Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient has not reached age 15 <input type="checkbox"/> insertion is evidence of access to venous system and free flow of IV solution into venous system. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> subset of denominator <input type="checkbox"/> specified query time period same period as denominator	
Numerator Data Source	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> ED Chart	
Description of Indicator Formula	<input type="checkbox"/> numerator value (N) divided by denominator value (D) equals number of pediatric peripheral IV insertions per licensed personnel	
Indicator Formula Numeric Expression	<input type="checkbox"/> $N / D = \text{Number of pediatric peripheral IV insertions per licensed personnel}$	
Linkage	Linkage Options	EMSA Data Elements
	<input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35
Stratification	Options	EMSA Data Elements
	<input type="checkbox"/> by incident type <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #3820
Indicator Exclusion Criteria	<input type="checkbox"/> adult oral intubations <input type="checkbox"/> nasal intubations	
References	<ul style="list-style-type: none"> <li>American Heart Association, Textbook on Advanced Cardiac Life Support, (2000)</li> <li>California Code of Regulations Title 22, Social Security Division 9, Prehospital EMS 1991</li> <li>O'Connor, R MD; ET Field experience; Paramedics to Proficiency, Prehospital &amp; Disaster Medicine: 1995, Vol 10 No 4, (Sup S23)</li> <li>Pediatric Airway Management Study. 1997 LA County EMS Services</li> <li>Skelton MB, McSwain NE. A study of Cognitive and Technical Skills Deterioration Among Trained paramedics. JACEP 1997;6: 436-438</li> <li>Stratton S., Prospective Study of Mannequin and Human Subjects for Endotracheal Intubation training for Paramedics, Ann of Emerg Me; 1991, Vol 20 p 1314-1318</li> </ul>	
Source	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> Index # SK1I	<b>ADVANCED PROVIDER SKILLS</b>	
<b>Measure</b>	% Insertion Rate <b>Pediatric Intra-osseous Access</b>	
<b>CORE INDICATOR REF</b> #SK1	CLINICAL SKILLS UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure % insertion rate per total attempts at pediatric intraosseous access for EMS personnel.	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Psychomotor skills	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> Table <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of attempt s at pediatric intraosseous access	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has not reached age 15 <input type="checkbox"/> Attempt is breaking the skin with intent to insert peripheral IO access <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> specified query time period same period as numerator	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #54C-A <input type="checkbox"/> EMSA #54 <input type="checkbox"/> EMSA #52
<b>Denominator Data Source</b>	<input type="checkbox"/> EMS Medical Records	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients whom a pediatric intraosseous insertion is performed	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has not reached age 15 <input type="checkbox"/> insertion is evidence of access to venous system and free flow of IV solution into venous system. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> subset of denominator <input type="checkbox"/> specified query time period same period as	<input type="checkbox"/> discharge status (TBD)

	denominator	
<b>Numerator Data Source</b>	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> ED Chart	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> patients age 15 or older	
<b>References</b>	<ul style="list-style-type: none"> <li>American Heart Association, Textbook on Advanced Cardiac Life Support, (2000)</li> <li>California Code of Regulations Title 22, Social Security Division 9, Prehospital EMS 1991</li> <li>O'Connor, R MD; ET Field experience; Paramedics to Proficiency, Prehospital &amp; Disaster Medicine: 1995, Vol 10 No 4, (Sup S23)</li> <li>Pediatric Airway Management Study. 1997 LA County EMS Services</li> <li>Skelton MB, McSwain NE. A study of Cognitive and Technical Skills Deterioration Among Trained paramedics. JACEP 1997;6: 436-438</li> <li>Stratton S., Prospective Study of Mannequin and Human Subjects for Endotracheal Intubation training for Paramedics, Ann of Emerg Me; 1991, Vol 20 p 1314-1318</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> Index # SK1J	<b>ADVANCED PROVIDER SKILLS</b>	
<b>Measure</b>	<b>Frequency of Skill Performance</b> <b>Pediatric Intra-osseous Access</b>	
<b>CORE INDICATOR REF</b> #SK1	CLINICAL SKILLS UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure frequency of pediatric Intraosseous Access is performed per year per licensed EMT-P personnel.	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> Number per licensed EMT-P	
<b>Display Format</b>	<input type="checkbox"/> Table <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of licensed EMT-P personnel in California	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> EMT-Paramedics <input type="checkbox"/> Currently licensed in state California <input type="checkbox"/> specified query time period same period as numerator	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA # <input type="checkbox"/> EMSA #
<b>Denominator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> EMSA	
<b>Population Subset</b>	<input type="checkbox"/> the number of pediatric peripheral IO insertions	

Numerator (N)		
Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient has not reached age 15 <input type="checkbox"/> insertion is evidence of access to venous system and free flow of IV solution into venous system. <input type="checkbox"/> event was in prehospital setting <input type="checkbox"/> subset of denominator <input type="checkbox"/> specified query time period same period as denominator	
Numerator Data Source	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> ED Chart	
Description of Indicator Formula	<input type="checkbox"/> numerator value (N) divided by denominator value (D) equals number of pediatric IO insertions per licensed personnel	
Indicator Formula Numeric Expression	<input type="checkbox"/> $N / D = \text{Number of pediatric IO insertions per licensed personnel}$	
Linkage	Linkage Options	EMSA Data Elements
	<input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35
Stratification	Options	EMSA Data Elements
	<input type="checkbox"/> by incident type <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #3
Indicator Exclusion Criteria	<input type="checkbox"/> patients age 15 or older	
References	<ul style="list-style-type: none"> <li>American Heart Association, Textbook on Advanced Cardiac Life Support, (2000)</li> <li>California Code of Regulations Title 22, Social Security Division 9, Prehospital EMS 1991</li> <li>O'Connor, R MD; ET Field experience; Paramedics to Proficiency, Prehospital &amp; Disaster Medicine: 1995, Vol 10 No 4, (Sup S23)</li> <li>Pediatric Airway Management Study. 1997 LA County EMS Services</li> <li>Skelton MB, McSwain NE. A study of Cognitive and Technical Skills Deterioration Among Trained paramedics. JACEP 1997;6: 436-438</li> <li>Stratton S., Prospective Study of Mannequin and Human Subjects for Endotracheal Intubation training for Paramedics, Ann of Emerg Me; 1991, Vol 20 p 1314-1318</li> </ul>	
Source	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR Index # TH1A</b>	<b>DESIGNATED TRAUMA HOSPITALS</b>	
<b>Measure</b>	<b>Trauma Hospitals Per Response Area</b>	
<b>CORE INDICATOR REF #TH1</b>	<b>SYSTEM OPERATIONS DESIGNATED TRAUMA HOSPITALS</b>	
<b>Objective</b>	<input type="checkbox"/> to measure number of designated trauma hospitals per EMS response area	
<b>Classification</b>	<input type="checkbox"/> System Ops – Trauma Hospitals	
<b>Type of Measure</b>	<input type="checkbox"/> Structural	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> Number per response area	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> standard deviation - no	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> Response Area	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> Specified geographic Response Area as defined by local EMS Authority	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #54V <input type="checkbox"/> EMSA #54C-A
<b>Denominator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Trauma Hospitals	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of designated trauma hospitals	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> hospitals designated by local EMS Authority as a Trauma Specialty Care <input type="checkbox"/> subset of denominator	<input type="checkbox"/>
<b>Numerator Data Source</b>	<input type="checkbox"/> LEMSA	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) equals number per area	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \text{number trauma hospitals per response area}$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/>	<input type="checkbox"/>
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/>	<input type="checkbox"/>
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-designated hospitals <input type="checkbox"/> non defined response areas	
<b>References</b>	Local Trauma Registries	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	
<b>CORE INDICATOR Index # TH1B</b>	<b>DESIGNATED TRAUMA HOSPITALS</b>	
<b>Measure</b>	<b>Trauma Cases Received Per 24 hrs</b>	
<b>CORE INDICATOR REF #TH1</b>	<b>SYSTEM OPERATIONS DESIGNATED TRAUMA HOSPITALS</b>	

<b>Objective</b>	<input type="checkbox"/> to measure average number of trauma cases received at designated trauma hospitals per 24 hr period	
<b>Classification</b>	<input type="checkbox"/> System Ops – Trauma Hospitals	
<b>Type of Measure</b>	<input type="checkbox"/> Structural	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> Average number per 24 hrs	
<b>Display Format</b>	<input type="checkbox"/> Bar Chart <input type="checkbox"/> List <input type="checkbox"/> Cube Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> standard deviation - No	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> 24 hour periods x at least 30	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> 24 hrs period = 1 day <input type="checkbox"/> at least 30 days to average	<input type="checkbox"/> EMSA #36 <input type="checkbox"/>
<b>Denominator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Trauma Hospitals	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of trauma cases received at a designated trauma hospitals	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> hospitals designated by local EMS Authority as a Trauma Specialty Care <input type="checkbox"/> Trauma Cases accepted from EMS system <input type="checkbox"/> subset of denominator	<input type="checkbox"/>
<b>Numerator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Trauma Hospital	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) equals average number per 24 hour period	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \text{average number trauma cases per 24 hrs}$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/>	<input type="checkbox"/>
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
		<input type="checkbox"/>
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> non-designated hospitals <input type="checkbox"/> non-trauma cases	
<b>References</b>	Local Trauma Registries	

<b>CORE INDICATOR</b> Index # TR1A	<b>CRITICAL TRAUMA</b>	
<b>Measure</b>	<b>Frequency Blunt Trauma</b>	
<b>CORE INDICATOR REF</b> #TR1	<b>TRAUMA - ADULT</b> TREATMENT PROTOCOL UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure % of critical trauma cases that are caused by a blunt mechanism of injury	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> structural	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume - Frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of all critical trauma cases	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> <b>Trauma</b> is an injury caused by blunt or penetrating kinematic mechanism in the prehospital setting <input type="checkbox"/> <b>Critical</b> is an adult patient with any of the following physiologic criteria:  an adult patient which meets local EMS trauma criteria which mandates triage to a designated trauma hospital.  <input type="checkbox"/> specified query time period same as numerator	<input type="checkbox"/> <b>EMSA#</b>  <input type="checkbox"/> <b>EMSA#</b>  <input type="checkbox"/> <b>EMSA#</b>
<b>Denominator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> hospital discharge records <input type="checkbox"/> OSHPD discharge record	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients with blunt trauma as a mechanism of injury <input type="checkbox"/>	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> subset of denominator <input type="checkbox"/> blunt trauma mechanism <input type="checkbox"/> specified query time period same as denominator	<input type="checkbox"/> <b>EMSA#</b>



<b>Numerator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital discharge records <input type="checkbox"/> OSHPD discharge record	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Penetrating Trauma Mechanisms <input type="checkbox"/> Non critical trauma patients <input type="checkbox"/> Non-trauma patients	
<b>References</b>	<input type="checkbox"/> Critical Trauma Indicator; Mountain-Valley EMS; Standards and Guidelines for EMS System Evaluation and Improvement Project; 2000 <input type="checkbox"/> Cowley, RA (1976) The resuscitation and stabilization of major multiple trauma patients in a trauma center environment. Clinical Medicine. 83(14) <input type="checkbox"/> Cales, R. H. and Helig, Jr., W. (1986) Trauma Care Systems. Aspen Publishers. Rockville, MD. <input type="checkbox"/> Local EMS Trauma Policies if applicable <input type="checkbox"/> Plant. J Critical Trauma – Calgary Trauma Registry; Limitations of Prehospital Index in Identifying Patients in Need of Major Trauma Centers. Ann of Emerg Med; 26:2, 133-137. 1995	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

CORE INDICATOR Index # TR1B	CRITICAL TRAUMA	
Measure	Frequency Penetrating Trauma	
CORE INDICATOR REF #TR1	TRAUMA - ADULT TREATMENT PROTOCOL UTILIZATION	
Objective	<input type="checkbox"/> to measure % of critical trauma cases that are caused by a penetrating mechanism of injury	
Classification	<input type="checkbox"/> medical care - clinical	
Type of Measure	<input type="checkbox"/> structural	
Domain of Performance	<input type="checkbox"/> Volume - Frequency	
Indicator Reporting Value	<input type="checkbox"/> %	
Display Format	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
Frequency of Display	<input type="checkbox"/> Monthly x 12	
Measures of Central Tendency	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
Trending Analysis	<input type="checkbox"/> NA	
Minimum Data Values	<input type="checkbox"/> 30 values per measure	
Sampling	<input type="checkbox"/> Periodic - Rate	
Aggregation	<input type="checkbox"/> Yes	
Blinded	<input type="checkbox"/> Yes	
Beta Testing	<input type="checkbox"/> None to Date	
Population Denominator (D)	<input type="checkbox"/> the number of all critical trauma cases	
Denominator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> <b>Trauma</b> is an injury caused by blunt or penetrating kinematic mechanism in the prehospital setting  <b>Critical</b> is an adult patient with any of the following physiologic criteria: an adult patient which meets local EMS trauma criteria which mandates triage to a designated trauma hospital.  <input type="checkbox"/> specified query time period same as numerator	<input type="checkbox"/> <b>EMSA#</b>  <input type="checkbox"/> <b>EMSA#</b>  <input type="checkbox"/> <b>EMSA#</b>
Denominator Data Source	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital discharge records <input type="checkbox"/> OSHPD discharge record	
Population Subset Numerator (N)	<input type="checkbox"/> the number of patients with penetrating trauma as a mechanism of injury	
Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> subset of denominator <input type="checkbox"/> penetrating trauma mechanism <input type="checkbox"/> specified query time period same as denominator	<input type="checkbox"/> <b>EMSA#</b>

<b>Numerator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> hospital discharge records <input type="checkbox"/> OSHPD discharge record	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Blunt Trauma Mechanisms <input type="checkbox"/> Non critical trauma patients <input type="checkbox"/> Non-trauma patients	
<b>References</b>	<input type="checkbox"/> Critical Trauma Indicator; Mountain-Valley EMS; Standards and Guidelines for EMS System Evaluation and Improvement Project; 2000 <input type="checkbox"/> Cowley, RA (1976) The resuscitation and stabilization of major multiple trauma patients in a trauma center environment. Clinical Medicine. 83(14) <input type="checkbox"/> Cales, R. H. and Helig, Jr., W. (1986) Trauma Care Systems. Aspen Publishers. Rockville, MD. <input type="checkbox"/> Local EMS Trauma Policies if applicable <input type="checkbox"/> Plant. J Critical Trauma – Calgary Trauma Registry; Limitations of Prehospital Index in Identifying Patients in Need of Major Trauma Centers. Ann of Emerg Med; 26:2, 133-137. 1995	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

CORE INDICATOR Index # TR1C	CRITICAL TRAUMA	
Measure	Frequency Pediatric	
CORE INDICATOR REF #TR1	TRAUMA - PEDIATRIC TREATMENT PROTOCOL UTILIZATION	
Objective	<input type="checkbox"/> to measure % of critical trauma cases that involve Pediatric patients	
Classification	<input type="checkbox"/> medical care - clinical	
Type of Measure	<input type="checkbox"/> structural	
Domain of Performance	<input type="checkbox"/> Volume - Frequency	
Indicator Reporting Value	<input type="checkbox"/> %	
Display Format	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
Frequency of Display	<input type="checkbox"/> Monthly x 12	
Measures of Central Tendency	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
Trending Analysis	<input type="checkbox"/> NA	
Minimum Data Values	<input type="checkbox"/> 30 values per measure	
Sampling	<input type="checkbox"/> Periodic - Rate	
Aggregation	<input type="checkbox"/> Yes	
Blinded	<input type="checkbox"/> Yes	
Beta Testing	<input type="checkbox"/> None to Date	
Population Denominator (D)	<input type="checkbox"/> the number of all critical trauma cases	
Denominator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient has NOT reached age 15 <input type="checkbox"/> <b>trauma</b> is an injury caused by blunt or penetrating kinematic mechanism in the prehospital setting <input type="checkbox"/> <b>Critical</b> is a patient with the following physiologic criteria:  an pediatric patient which meets local EMS trauma criteria which mandates triage to a designated trauma or specialty care center due to traumatic injuries  <input type="checkbox"/> specified query time period same as numerator	<input type="checkbox"/> <b>EMSA#</b>  <input type="checkbox"/> <b>EMSA#</b>  <input type="checkbox"/> <b>EMSA#</b>
Denominator Data Source	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital discharge records <input type="checkbox"/> OSHPD discharge record	
Population Subset Numerator (N)	<input type="checkbox"/> the number of pediatric patients with critical trauma	
Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> Subset of denominator	<input type="checkbox"/> EMSA#

	<input type="checkbox"/> specified query time period same as denominator	
<b>Numerator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital discharge records <input type="checkbox"/> OSHPD discharge record	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Patients age 15 or older <input type="checkbox"/> Non-critical trauma patients <input type="checkbox"/> Non-trauma patients	
<b>References</b>	<input type="checkbox"/> Critical Trauma Indicator; Mountain-Valley EMS; Standards and Guidelines for EMS System Evaluation and Improvement Project; 2000 <input type="checkbox"/> Cowley, RA (1976) The resuscitation and stabilization of major multiple trauma patients in a trauma center environment. Clinical Medicine. 83(14) <input type="checkbox"/> Cales, R. H. and Helig, Jr., W. (1986) Trauma Care Systems. Aspen Publishers. Rockville, MD. <input type="checkbox"/> Local EMS Trauma Policies if applicable <input type="checkbox"/> Plant. J Critical Trauma – Calgary Trauma Registry; Limitations of Prehospital Index in Identifying Patients in Need of Major Trauma Centers. Ann of Emerg Med; 26:2, 133-137. 1995	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

CORE INDICATOR Index # TR1D	CRITICAL TRAUMA	
Measure	Frequency Head, Neck, Face Trauma	
CORE INDICATOR REF #TR1	TRAUMA - ADULT TREATMENT PROTOCOL UTILIZATION	
Objective	<input type="checkbox"/> to measure % of critical trauma cases that involve head, neck or face injuries	
Classification	<input type="checkbox"/> medical care - clinical	
Type of Measure	<input type="checkbox"/> structural	
Domain of Performance	<input type="checkbox"/> Volume - Frequency	
Indicator Reporting Value	<input type="checkbox"/> %	
Display Format	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
Frequency of Display	<input type="checkbox"/> Monthly x 12	
Measures of Central Tendency	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
Trending Analysis	<input type="checkbox"/> NA	
Minimum Data Values	<input type="checkbox"/> 30 values per measure	
Sampling	<input type="checkbox"/> Periodic - Rate	
Aggregation	<input type="checkbox"/> Yes	
Blinded	<input type="checkbox"/> Yes	
Beta Testing	<input type="checkbox"/> None to Date	
Population Denominator (D)	<input type="checkbox"/> the number of all critical trauma cases	
Denominator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> <b>Trauma</b> is an injury caused by blunt or penetrating kinematic mechanism in the prehospital setting  <b>Critical</b> is an adult patient with any of the following physiologic criteria: an adult patient which meets local EMS trauma criteria which mandates triage to a designated trauma hospital.  <input type="checkbox"/> specified query time period same as numerator	<input type="checkbox"/> <b>EMSA#</b>  <input type="checkbox"/> <b>EMSA#</b>  <input type="checkbox"/> <b>EMSA#</b>
Denominator Data Source	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> hospital discharge records <input type="checkbox"/> OSHPD discharge record	
Population Subset Numerator (N)	<input type="checkbox"/> the number of patients with injuries to head, neck or face	
Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time period same as denominator	<input type="checkbox"/> <b>EMSA#</b>
Numerator Data Source	<input type="checkbox"/> LEMSA	

	<input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital discharge records <input type="checkbox"/> OSHPD discharge record	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Injuries to areas other than the head, neck or face <input type="checkbox"/> Non critical trauma patients <input type="checkbox"/> Non-trauma patients	
<b>References</b>	<input type="checkbox"/> Critical Trauma Indicator; Mountain-Valley EMS; Standards and Guidelines for EMS System Evaluation and Improvement Project; 2000 <input type="checkbox"/> Cowley, RA (1976) The resuscitation and stabilization of major multiple trauma patients in a trauma center environment. Clinical Medicine. 83(14) <input type="checkbox"/> Cales, R. H. and Helig, Jr., W. (1986) Trauma Care Systems. Aspen Publishers. Rockville, MD. <input type="checkbox"/> Local EMS Trauma Policies if applicable <input type="checkbox"/> Plant. J Critical Trauma – Calgary Trauma Registry; Limitations of Prehospital Index in Identifying Patients in Need of Major Trauma Centers. Ann of Emerg Med; 26:2, 133-137. 1995	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> Index # TR1E	<b>CRITICAL TRAUMA</b>	
<b>Measure</b>	<b>Frequency Chest</b>	
<b>CORE INDICATOR REF</b> #TR1	<b>TRAUMA - ADULT</b> TREATMENT PROTOCOL UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure % of critical trauma cases that involve chest injuries	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> structural	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume - Frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of all critical trauma cases	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> <b>trauma</b> is an injury caused by blunt or penetrating kinematic mechanism in the prehospital setting  <b>Critical</b> is an adult patient with any of the following physiologic criteria:  an adult patient which meets local EMS trauma criteria which mandates triage to a designated trauma hospital.  <input type="checkbox"/> specified query time period same as numerator	<input type="checkbox"/> <b>EMSA#</b>  <input type="checkbox"/> <b>EMSA#</b>  <input type="checkbox"/>
<b>Denominator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> hospital discharge records <input type="checkbox"/> OSHPD discharge record	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients with injuries to chest	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time period same as denominator	<input type="checkbox"/> <b>EMSA#</b>
<b>Numerator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital	



	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital discharge records <input type="checkbox"/> OSHPD discharge record	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Injuries to areas other than the chest <input type="checkbox"/> Non critical trauma patients <input type="checkbox"/> Non-trauma patients	
<b>References</b>	<input type="checkbox"/> Critical Trauma Indicator; Mountain-Valley EMS; Standards and Guidelines for EMS System Evaluation and Improvement Project; 2000 <input type="checkbox"/> Cowley, RA (1976) The resuscitation and stabilization of major multiple trauma patients in a trauma center environment. Clinical Medicine. 83(14) <input type="checkbox"/> Cales, R. H. and Helig, Jr., W. (1986) Trauma Care Systems. Aspen Publishers. Rockville, MD. <input type="checkbox"/> Local EMS Trauma Policies if applicable <input type="checkbox"/> Plant. J Critical Trauma – Calgary Trauma Registry; Limitations of Prehospital Index in Identifying Patients in Need of Major Trauma Centers. Ann of Emerg Med; 26:2, 133-137. 1995	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> Index # TR1F	<b>CRITICAL TRAUMA</b>	
<b>Measure</b>	<b>Frequency Abdomen</b>	
<b>CORE INDICATOR REF #TR1</b>	<b>TRAUMA - ADULT</b> TREATMENT PROTOCOL UTILIZATION	
<b>Objective</b>	<input type="checkbox"/> to measure % of critical trauma cases that involve abdominal injuries	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> structural	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume - Frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of all critical trauma cases	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> <b>trauma</b> is an injury caused by blunt or penetrating kinematic mechanism in the prehospital setting <input type="checkbox"/> <b>Critical</b> is an adult patient with any of the following physiologic criteria:  an adult patient which meets local EMS trauma criteria which mandates triage to a designated trauma hospital.  <input type="checkbox"/> specified query time period same as numerator	<input type="checkbox"/> <b>EMSA#</b>  <input type="checkbox"/> <b>EMSA#</b>
<b>Denominator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital discharge records <input type="checkbox"/> OSHPD discharge record	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients with injuries to abdomen	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time period same as denominator	<input type="checkbox"/> <b>EMSA#</b>
<b>Numerator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital	

	<input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital discharge records <input type="checkbox"/> OSHPD discharge record	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Injuries to areas other than the abdomen <input type="checkbox"/> Non critical trauma patients <input type="checkbox"/> Non-trauma patients	
<b>References</b>	<input type="checkbox"/> Critical Trauma Indicator; Mountain-Valley EMS; Standards and Guidelines for EMS System Evaluation and Improvement Project; 2000 <input type="checkbox"/> Cowley, RA (1976) The resuscitation and stabilization of major multiple trauma patients in a trauma center environment. Clinical Medicine. 83(14) <input type="checkbox"/> Cales, R. H. and Helig, Jr., W. (1986) Trauma Care Systems. Aspen Publishers. Rockville, MD. <input type="checkbox"/> Local EMS Trauma Policies if applicable <input type="checkbox"/> Plant. J Critical Trauma – Calgary Trauma Registry; Limitations of Prehospital Index in Identifying Patients in Need of Major Trauma Centers. Ann of Emerg Med; 26:2, 133-137. 1995	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # TR1G</b>	<b>CRITICAL TRAUMA</b>	
<b>Measure</b>	<b>Frequency Burns</b>	
<b>CORE INDICATOR REF #TR1</b>	<b>TRAUMA - ADULT</b> <b>TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of critical trauma cases that involve thermal burn injuries	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> structural	
<b>Domain of Performance</b>	<input type="checkbox"/> Volume - Frequency	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of all critical trauma cases	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> <b>trauma</b> is an injury caused by blunt or penetrating kinematic mechanism in the prehospital setting <input type="checkbox"/> <b>Critical</b> is an adult patient with any of the following physiologic criteria:  an adult patient which meets local EMS trauma criteria which mandates triage to a designated trauma hospital.  <input type="checkbox"/> specified query time period same as numerator	<input type="checkbox"/> <b>EMSA#</b>  <input type="checkbox"/> <b>EMSA#</b>  <input type="checkbox"/> <b>EMSA#</b>
<b>Denominator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital discharge records <input type="checkbox"/> OSHPD discharge record	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number of patients with thermal burn injuries	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time period same as denominator	<input type="checkbox"/> <b>EMSA#</b>

<b>Numerator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital discharge records <input type="checkbox"/> OSHPD discharge record	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Injuries other than thermal burns <input type="checkbox"/> Non-critical trauma patients <input type="checkbox"/> Non-trauma patients	
<b>References</b>	<input type="checkbox"/> Critical Trauma Indicator; Mountain-Valley EMS; Standards and Guidelines for EMS System Evaluation and Improvement Project; 2000 <input type="checkbox"/> Cowley, RA (1976) The resuscitation and stabilization of major multiple trauma patients in a trauma center environment. Clinical Medicine. 83(14) <input type="checkbox"/> Cales, R. H. and Helig, Jr., W. (1986) Trauma Care Systems. Aspen Publishers. Rockville, MD. <input type="checkbox"/> Local EMS Trauma Policies if applicable <input type="checkbox"/> Plant. J Critical Trauma – Calgary Trauma Registry; Limitations of Prehospital Index in Identifying Patients in Need of Major Trauma Centers. Ann of Emerg Med; 26:2, 133-137. 1995	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	



Numerator (N)		
Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time period same as denominator	<input type="checkbox"/> EMSA#
Numerator Data Source	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital discharge records <input type="checkbox"/> OSHPD discharge record	
Description of Indicator Formula	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
Indicator Formula Numeric Expression	<input type="checkbox"/> $N / D = \%$	
Linkage	Linkage Options	EMSA Data Elements
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
Stratification	Options	EMSA Data Elements
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (
Indicator Exclusion Criteria	<input type="checkbox"/> Injuries other than thermal burns <input type="checkbox"/> Non-critical trauma patients <input type="checkbox"/> Non-trauma patients	
References	<input type="checkbox"/> Critical Trauma Indicator; Mountain-Valley EMS; Standards and Guidelines for EMS System Evaluation and Improvement Project; 2000 <input type="checkbox"/> Cowley, RA (1976) The resuscitation and stabilization of major multiple trauma patients in a trauma center environment. Clinical Medicine. 83(14) <input type="checkbox"/> Cales, R. H. and Helig, Jr., W. (1986) Trauma Care Systems. Aspen Publishers. Rockville, MD. <input type="checkbox"/> Local EMS Trauma Policies if applicable <input type="checkbox"/> Plant. J Critical Trauma – Calgary Trauma Registry; Limitations of Prehospital Index in Identifying Patients in Need of Major Trauma Centers. Ann of Emerg Med; 26:2, 133-137. 1995	
Source	<input type="checkbox"/> California EMSA Vision Project	

CORE INDICATOR Index # TR1I	CRITICAL TRAUMA	
Measure	Transport Time Less Than 10 minutes	
CORE INDICATOR REF #TR1	TRAUMA - ADULT TREATMENT PROTOCOL UTILIZATION	
Objective	<input type="checkbox"/> to measure % of critical trauma cases where transport to hospital time is under ten minutes	
Classification	<input type="checkbox"/> medical care - clinical	
Type of Measure	<input type="checkbox"/> Process	
Domain of Performance	<input type="checkbox"/> Effectiveness	
Indicator Reporting Value	<input type="checkbox"/> %	
Display Format	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Control Chart	
Frequency of Display	<input type="checkbox"/> Monthly x 12	
Measures of Central Tendency	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
Trending Analysis	<input type="checkbox"/> NA	
Minimum Data Values	<input type="checkbox"/> 30 values per measure	
Sampling	<input type="checkbox"/> Periodic - Rate	
Aggregation	<input type="checkbox"/> Yes	
Blinded	<input type="checkbox"/> Yes	
Beta Testing	<input type="checkbox"/> None to Date	
Population Denominator (D)	<input type="checkbox"/> the number of all critical trauma cases	
Denominator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> <b>trauma</b> is an injury caused by blunt or penetrating kinematic mechanism in the prehospital setting <input type="checkbox"/> <b>Critical</b> is an adult patient with any of the following physiologic criteria: <input type="checkbox"/> <b>Critical</b> is an adult patient with any of the following physiologic criteria: meets local EMS trauma criteria which mandates triage to a designated trauma hospital. <input type="checkbox"/> specified query time period same as numerator	<input type="checkbox"/> <b>EMSA#</b>  <input type="checkbox"/> <b>EMSA#</b>        <input type="checkbox"/> <b>EMSA#</b>
Denominator Data Source	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital discharge records <input type="checkbox"/> OSHPD discharge record	
Population Subset Numerator (N)	<input type="checkbox"/> the number cases are transport time is less than 10 min	
Numerator	Inclusion Criteria	EMSA Data Elements
	<input type="checkbox"/> Transport time is from	<input type="checkbox"/> EMSA#



	(wheel turn) enroute to (wheel stop) arrival at receiving facility <input type="checkbox"/> Subset of denominator <input type="checkbox"/> specified query time period same as denominator	
<b>Numerator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital discharge records <input type="checkbox"/> OSHPD discharge record	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #0 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Non-critical trauma patients <input type="checkbox"/> Non-trauma patients <input type="checkbox"/> Transport Times 10 min or greater	
<b>References</b>	<input type="checkbox"/> Critical Trauma Indicator; Mountain-Valley EMS; Standards and Guidelines for EMS System Evaluation and Improvement Project; 2000 <input type="checkbox"/> Cowley, RA (1976) The resuscitation and stabilization of major multiple trauma patients in a trauma center environment. Clinical Medicine. 83(14) <input type="checkbox"/> Cales, R. H. and Helig, Jr., W. (1986) Trauma Care Systems. Aspen Publishers. Rockville, MD. <input type="checkbox"/> Local EMS Trauma Policies if applicable <input type="checkbox"/> Plant. J Critical Trauma – Calgary Trauma Registry; Limitations of Prehospital Index in Identifying Patients in Need of Major Trauma Centers. Ann of Emerg Med; 26:2, 133-137. 1995	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	



	<input type="checkbox"/> specified query time period same as denominator	
<b>Numerator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital discharge records <input type="checkbox"/> OSHPD discharge record	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #0 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Non-critical trauma patients <input type="checkbox"/> Non-trauma patients <input type="checkbox"/> Transport Times 20 min or greater	
<b>References</b>	<input type="checkbox"/> Critical Trauma Indicator; Mountain-Valley EMS; Standards and Guidelines for EMS System Evaluation and Improvement Project; 2000 <input type="checkbox"/> Cowley, RA (1976) The resuscitation and stabilization of major multiple trauma patients in a trauma center environment. Clinical Medicine. 83(14) <input type="checkbox"/> Cales, R. H. and Helig, Jr., W. (1986) Trauma Care Systems. Aspen Publishers. Rockville, MD. <input type="checkbox"/> Local EMS Trauma Policies if applicable <input type="checkbox"/> Plant. J Critical Trauma – Calgary Trauma Registry; Limitations of Prehospital Index in Identifying Patients in Need of Major Trauma Centers. Ann of Emerg Med; 26:2, 133-137. 1995	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

<b>CORE INDICATOR</b> <b>Index # TR1K</b>	<b>CRITICAL TRAUMA</b>	
<b>Measure</b>	<b>Triage to Specialty Care Center</b>	
<b>CORE INDICATOR REF</b> <b>#TR1</b>	<b>TRAUMA - ADULT</b> <b>TREATMENT PROTOCOL UTILIZATION</b>	
<b>Objective</b>	<input type="checkbox"/> to measure % of critical trauma cases that are transported to designated trauma centers or designated trauma specialty care hospitals	
<b>Classification</b>	<input type="checkbox"/> medical care - clinical	
<b>Type of Measure</b>	<input type="checkbox"/> Process	
<b>Domain of Performance</b>	<input type="checkbox"/> Compliance	
<b>Indicator Reporting Value</b>	<input type="checkbox"/> %	
<b>Display Format</b>	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart	
<b>Frequency of Display</b>	<input type="checkbox"/> Monthly x 12	
<b>Measures of Central Tendency</b>	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
<b>Trending Analysis</b>	<input type="checkbox"/> NA	
<b>Minimum Data Values</b>	<input type="checkbox"/> 30 values per measure	
<b>Sampling</b>	<input type="checkbox"/> Periodic - Rate	
<b>Aggregation</b>	<input type="checkbox"/> Yes	
<b>Blinded</b>	<input type="checkbox"/> Yes	
<b>Beta Testing</b>	<input type="checkbox"/> None to Date	
<b>Population Denominator (D)</b>	<input type="checkbox"/> the number of all critical trauma cases	
<b>Denominator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> <b>trauma</b> is an injury caused by blunt or penetrating kinematic mechanism in the prehospital setting <input type="checkbox"/> <b>Critical</b> is an adult patient with any of the following physiologic criteria: meets local EMS trauma criteria which mandates triage to a designated trauma hospital. <input type="checkbox"/> specified query time period same as numerator	<input type="checkbox"/> <b>EMSA#</b>  <input type="checkbox"/> <b>EMSA#</b>
<b>Denominator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital discharge records <input type="checkbox"/> OSHPD discharge record	
<b>Population Subset Numerator (N)</b>	<input type="checkbox"/> the number cases which are transported to a designated trauma center or designated trauma specialty care center	
<b>Numerator</b>	<b>Inclusion Criteria</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> Trauma Center or Trauma Specialty Care Centers are hospitals specifically designated by local EMS Authority as receiving	<input type="checkbox"/> EMSA#

	<ul style="list-style-type: none"> <li>facilities for trauma patients meeting specific local trauma criteria.</li> <li><input type="checkbox"/> subset of denominator</li> <li><input type="checkbox"/> specified query time period same as denominator</li> </ul>	
<b>Numerator Data Source</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> LEMSA</li> <li><input type="checkbox"/> Designated Trauma Hospital</li> <li><input type="checkbox"/> EMS Medical Records</li> <li><input type="checkbox"/> Hospital discharge records</li> <li><input type="checkbox"/> OSHPD discharge record</li> </ul>	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<ul style="list-style-type: none"> <li><input type="checkbox"/> name</li> <li><input type="checkbox"/> dob</li> <li><input type="checkbox"/> age</li> <li><input type="checkbox"/> gender</li> <li><input type="checkbox"/> admit date</li> <li><input type="checkbox"/> procedures</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> EMSA #29</li> <li><input type="checkbox"/> EMSA #35</li> <li><input type="checkbox"/> EMSA #36</li> <li><input type="checkbox"/> EMSA #38</li> <li><input type="checkbox"/> EMSA # ?</li> <li><input type="checkbox"/> EMSA #73</li> </ul>
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<ul style="list-style-type: none"> <li><input type="checkbox"/> by age</li> <li><input type="checkbox"/> by gender</li> <li><input type="checkbox"/> by incident type</li> <li><input type="checkbox"/> by response times</li> <li><input type="checkbox"/> by scene times</li> <li><input type="checkbox"/> by provider level</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> EMSA #36</li> <li><input type="checkbox"/> EMSA #38</li> <li><input type="checkbox"/> EMSA #8</li> <li><input type="checkbox"/> EMSA #0</li> <li><input type="checkbox"/> EMSA #8</li> <li><input type="checkbox"/> EMSA #73 (</li> </ul>
<b>Indicator Exclusion Criteria</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Non-critical trauma patients</li> <li><input type="checkbox"/> Non-trauma patients</li> </ul>	
<b>References</b>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Critical Trauma Indicator; Mountain-Valley EMS; Standards and Guidelines for EMS System Evaluation and Improvement Project; 2000</li> <li><input type="checkbox"/> Cowley, RA (1976) The resuscitation and stabilization of major multiple trauma patients in a trauma center environment. Clinical Medicine. 83(14)</li> <li><input type="checkbox"/> Cales, R. H. and Helig, Jr., W. (1986) Trauma Care Systems. Aspen Publishers. Rockville, MD.</li> <li><input type="checkbox"/> Local EMS Trauma Policies if applicable</li> <li><input type="checkbox"/> Plant. J Critical Trauma – Calgary Trauma Registry; Limitations of Prehospital Index in Identifying Patients in Need of Major Trauma Centers. Ann of Emerg Med; 26:2, 133-137. 1995</li> </ul>	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	



	same as denominator	
<b>Numerator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital discharge records <input type="checkbox"/> OSHPD discharge record	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #0 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Non-critical trauma patients <input type="checkbox"/> Non-trauma patients <input type="checkbox"/> Transport Times 20 min or greater	
<b>References</b>	<input type="checkbox"/> Critical Trauma Indicator; Mountain-Valley EMS; Standards and Guidelines for EMS System Evaluation and Improvement Project; 2000 <input type="checkbox"/> Cowley, RA (1976) The resuscitation and stabilization of major multiple trauma patients in a trauma center environment. Clinical Medicine. 83(14) <input type="checkbox"/> Cales, R. H. and Helig, Jr., W. (1986) Trauma Care Systems. Aspen Publishers. Rockville, MD. <input type="checkbox"/> Local EMS Trauma Policies if applicable <input type="checkbox"/> Plant. J Critical Trauma – Calgary Trauma Registry; Limitations of Prehospital Index in Identifying Patients in Need of Major Trauma Centers. Ann of Emerg Med; 26:2, 133-137. 1995	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

CORE INDICATOR Index # TR1M		CRITICAL TRAUMA	
Measure	Prehospital Oxygenation		
CORE INDICATOR REF #TR1	TRAUMA - ADULT TREATMENT PROTOCOL UTILIZATION		
Objective	<input type="checkbox"/> to measure % of critical trauma cases where oxygen saturation levels are 98% or above upon arrival at receiving facilities		
Classification	<input type="checkbox"/> medical care - clinical		
Type of Measure	<input type="checkbox"/> Process		
Domain of Performance	<input type="checkbox"/> Skills Performance		
Indicator Reporting Value	<input type="checkbox"/> %		
Display Format	<input type="checkbox"/> List <input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph <input type="checkbox"/> Process Control Chart		
Frequency of Display	<input type="checkbox"/> Monthly x 12		
Measures of Central Tendency	<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes		
Trending Analysis	<input type="checkbox"/> NA		
Minimum Data Values	<input type="checkbox"/> 30 values per measure		
Sampling	<input type="checkbox"/> Periodic - Rate		
Aggregation	<input type="checkbox"/> Yes		
Blinded	<input type="checkbox"/> Yes		
Beta Testing	<input type="checkbox"/> None to Date		
Population Denominator (D)	<input type="checkbox"/> the number of all critical trauma cases		
Denominator	Inclusion Criteria	EMSA Data Elements	
	<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> <b>trauma</b> is an injury caused by blunt or penetrating kinematic mechanism in the prehospital setting  <input type="checkbox"/> <b>Critical</b> is an adult patient with any of the following physiologic criteria: meets local EMS trauma criteria which mandates triage to a designated trauma hospital.  <input type="checkbox"/> specified query time period same as numerator	<input type="checkbox"/> <b>EMSA#</b>   <input type="checkbox"/> <b>EMSA#</b>	
Denominator Data Source	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital discharge records <input type="checkbox"/> OSHPD discharge record		
Population Subset Numerator (N)	<input type="checkbox"/> the number cases where the patient arrives at receiving facility with oxygen saturation level of 98% or higher.		
Numerator	Inclusion Criteria	EMSA Data Elements	
	<input type="checkbox"/> Prehospital oxygenation means to provide oxygen to a patient by any modality or device	<input type="checkbox"/> EMSA#	



	<input type="checkbox"/> Oxygen saturation is measured (%) upon arrival at receiving hospital by pulse oxymeter. <input type="checkbox"/> subset of denominator <input type="checkbox"/> specified query time period same as denominator	
<b>Numerator Data Source</b>	<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital discharge records <input type="checkbox"/> OSHPD discharge record	
<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #0 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73 (
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Non-critical trauma patients <input type="checkbox"/> Non-trauma patients	
<b>References</b>	<input type="checkbox"/> Critical Trauma Indicator; Mountain-Valley EMS; Standards and Guidelines for EMS System Evaluation and Improvement Project; 2000 <input type="checkbox"/> Cowley, RA (1976) The resuscitation and stabilization of major multiple trauma patients in a trauma center environment. Clinical Medicine. 83(14) <input type="checkbox"/> Cales, R. H. and Helig, Jr., W. (1986) Trauma Care Systems. Aspen Publishers. Rockville, MD. <input type="checkbox"/> Local EMS Trauma Policies if applicable <input type="checkbox"/> Plant. J Critical Trauma – Calgary Trauma Registry; Limitations of Prehospital Index in Identifying Patients in Need of Major Trauma Centers. Ann of Emerg Med; 26:2, 133-137. 1995	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	



<b>Formula</b>	by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Non-critical trauma patients <input type="checkbox"/> Non-trauma patients <input type="checkbox"/> patient has not survived to hospital discharge	
<b>References</b>	<input type="checkbox"/> Critical Trauma Indicator; Mountain-Valley EMS; Standards and Guidelines for EMS System Evaluation and Improvement Project; 2000 <input type="checkbox"/> Cowley, RA (1976) The resuscitation and stabilization of major multiple trauma patients in a trauma center environment. Clinical Medicine. 83(14) Cales, R. H. and Helig, Jr., W. (1986) Trauma Care Systems. Aspen Publishers. Rockville, MD. Local EMS Trauma Policies if applicable <input type="checkbox"/> Plant. J Critical Trauma – Calgary Trauma Registry; Limitations of Prehospital Index in Identifying Patients in Need of Major Trauma Centers. Ann of Emerg Med; 26:2, 133-137. 1995	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	

CORE INDICATOR Index # TR10		CRITICAL TRAUMA A	
Measure		Survival to Hospital Discharge	
CORE INDICATOR REF #TR1		TRAUMA - ADULT TREATMENT PROTOCOL UTILIZATION	
Objective		<input type="checkbox"/> to measure % of patients who survive to hospital discharge after suffering a critical trauma event	
Classification		<input type="checkbox"/> medical care - clinical	
Type of Measure		<input type="checkbox"/> outcome	
Domain of Performance		<input type="checkbox"/> Effectiveness	
Indicator Reporting Value		<input type="checkbox"/> %	
Display Format		<input type="checkbox"/> Cube Chart <input type="checkbox"/> Bar Chart <input type="checkbox"/> Line Graph	
Frequency of Display		<input type="checkbox"/> Monthly x 12	
Measures of Central Tendency		<input type="checkbox"/> mean - Yes <input type="checkbox"/> mode - No <input type="checkbox"/> variance - No <input type="checkbox"/> standard deviation - Yes	
Trending Analysis		<input type="checkbox"/> NA	
Minimum Data Values		<input type="checkbox"/> 30 values per measure	
Sampling		<input type="checkbox"/> Periodic - Rate	
Aggregation		<input type="checkbox"/> Yes	
Blinded		<input type="checkbox"/> Yes	
Beta Testing		<input type="checkbox"/> None to Date	
Population Denominator (D)		<input type="checkbox"/> the number of adult patients who suffer a critical trauma event	
Denominator		Inclusion Criteria	EMSA Data Elements
		<input type="checkbox"/> patient has reached age 15 <input type="checkbox"/> <b>trauma</b> is an injury caused by blunt or penetrating kinematic mechanism in the prehospital setting  <input type="checkbox"/> <b>Critical</b> is an adult patient with any of the following physiologic criteria: meets local EMS trauma criteria which mandates triage to a designated trauma hospital.  <input type="checkbox"/> specified query time period same as numerator	<input type="checkbox"/> EMSA #36  <input type="checkbox"/> EMSA #54VTAC, 54VFIB <input type="checkbox"/> EMSA #54C-A  <input type="checkbox"/> EMSA #54  <input type="checkbox"/> EMSA #52  <input type="checkbox"/> EMSA #11
Denominator Data Source		<input type="checkbox"/> LEMSA <input type="checkbox"/> Designated Trauma Hospital <input type="checkbox"/> EMS Medical Records <input type="checkbox"/> Hospital discharge records <input type="checkbox"/> OSHPD discharge record EMS Medical Records	
Population Subset Numerator (N)		<input type="checkbox"/> the number of patients who survive to hospital discharge	
Numerator		Inclusion Criteria	EMSA Data Elements
		<input type="checkbox"/> patients who survive to hospital discharge	<input type="checkbox"/> discharge status (TBD)
Numerator Data Source		<input type="checkbox"/> hospital discharge records <input type="checkbox"/> OSHPD discharge record <input type="checkbox"/> trauma registry	

<b>Description of Indicator Formula</b>	<input type="checkbox"/> numerator value (N) divided by denominator value (D) multiplied by 100 equals percentage (%)	
<b>Indicator Formula Numeric Expression</b>	<input type="checkbox"/> $N / D = \%$	
<b>Linkage</b>	<b>Linkage Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> name <input type="checkbox"/> dob <input type="checkbox"/> age <input type="checkbox"/> gender <input type="checkbox"/> admit date <input type="checkbox"/> procedures	<input type="checkbox"/> EMSA #29 <input type="checkbox"/> EMSA #35 <input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA # ? <input type="checkbox"/> EMSA #73
<b>Stratification</b>	<b>Options</b>	<b>EMSA Data Elements</b>
	<input type="checkbox"/> by age <input type="checkbox"/> by gender <input type="checkbox"/> by incident type <input type="checkbox"/> by response times <input type="checkbox"/> by scene times <input type="checkbox"/> by provider level	<input type="checkbox"/> EMSA #36 <input type="checkbox"/> EMSA #38 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #17-20 <input type="checkbox"/> EMSA #8 <input type="checkbox"/> EMSA #73
<b>Indicator Exclusion Criteria</b>	<input type="checkbox"/> Non-critical trauma patients <input type="checkbox"/> Non-trauma patients <input type="checkbox"/> patient has not survived to hospital discharge	
<b>References</b>	<input type="checkbox"/> Critical Trauma Indicator; Mountain-Valley EMS; Standards and Guidelines for EMS System Evaluation and Improvement Project; 2000 <input type="checkbox"/> Cowley, RA (1976) The resuscitation and stabilization of major multiple trauma patients in a trauma center environment. Clinical Medicine. 83(14) <input type="checkbox"/> Cales, R. H. and Helig, Jr., W. (1986) Trauma Care Systems. Aspen Publishers. Rockville, MD. <input type="checkbox"/> Local EMS Trauma Policies if applicable <input type="checkbox"/> Plant. J Critical Trauma – Calgary Trauma Registry; Limitations of Prehospital Index in Identifying Patients in Need of Major Trauma Centers. Ann of Emerg Med; 26:2, 133-137. 1995	
<b>Source</b>	<input type="checkbox"/> California EMSA Vision Project	